

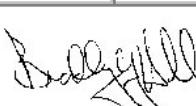
STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT



APPLICATION FOR PERMIT TO DRILL							1. WELL NAME and NUMBER NORTH ALGER #27-411			
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>							3. FIELD OR WILDCAT NATURAL BUTTES			
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO							5. UNIT or COMMUNITIZATION AGREEMENT NAME NORTH ALGER			
6. NAME OF OPERATOR KOCHEXPLORATION COMPANY LLC							7. OPERATOR PHONE 303 325-2562			
8. ADDRESS OF OPERATOR 9777 Pyramid Court Ste 210, Englewood, CO, 80112							9. OPERATOR E-MAIL howard4d@kochind.com			
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU49518, UTU-49519			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>				12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			
13. NAME OF SURFACE OWNER (if box 12 = 'fee')							14. SURFACE OWNER PHONE (if box 12 = 'fee')			
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')							16. SURFACE OWNER E-MAIL (if box 12 = 'fee')			
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>				19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>			
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE		780 FSL 233 FWL		SWSW		27	10.0 S	19.0 E	S	
Top of Uppermost Producing Zone		1650 FSL 990 FEL		NESE		28	10.0 S	19.0 E	S	
At Total Depth		1650 FSL 990 FEL		NESE		28	10.0 S	19.0 E	S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 233				23. NUMBER OF ACRES IN DRILLING UNIT 640			
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2150				26. PROPOSED DEPTH MD: 10646 TVD: 10300			
27. ELEVATION - GROUND LEVEL 5255			28. BOND NUMBER COB000296				29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 49-2231, 43-8496, 49-1645			
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	12.25	8.625	0 - 2500	32.0	J-55 LT&C	0.2	Type V	231	3.82	11.0
							Class G	473	1.15	15.8
PROD	7.875	4.5	0 - 10646	32.0	L-80 LT&C	13.0	Premium Lite High Strength	612	1.79	12.0
							Premium Lite High Strength	1428	1.27	13.5
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Janni Keidel			TITLE Operations/Regulatory Coordinator				PHONE 303 325-2578			
SIGNATURE			DATE 10/25/2013				EMAIL janni.keidel@kochind.com			
API NUMBER ASSIGNED 43047540750000			APPROVAL				 Permit Manager			

Koch Exploration Company

DRILLING PROGRAM

North Alger 27-41I

WELL: NA 27-41I **PROPOSED DEPTH:** 10,646' MD
COUNTY: Uintah **TRUE VERTICAL DEPTH:** 10,300' TVD
API: TBD **ELEVATION:** 5,255' GL
Lease No. UTU-49518 **ESTIMATED RKB:** +/-5,275' KB
 UTU-49519
SHL: 780' FSL & 233' FWL (SWSW) Section 27, T10S, R19E S.L.B.&M.
 39.912996, -109.776607 (NAD 83)
BHL: 1650' FSL & 990' FEL (NESE) Section 28, T10S, R19E S.L.B.&M.
 39.915373, -109.781022 (NAD 83)

**1. & 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

<u>Formation</u>	<u>TVDepth</u>	<u>Potential Problems</u>	<u>Resource</u>
Green River	1,000'	Lost Circulation	Possible Oil
Wasatch	4,396'		Gas
Chapita Wells	4,991'		Gas
Buck Canyon	5,702'		Gas
North Horn	6,648'		Gas
Mesaverde	7,825'	Tight Hole	Gas
Middle Price River	8,930'		Gas
Lower Price River	9,732'		Gas
Sego	10,091'	Tight Hole	Gas
TD	10,300'		
Max Anticipated Bottom Hole Pressure			6,592 psi
Max Anticipated Surface Pressure (MASP)			4,326 psi

3. Pressure Control Equipment (Schematic Attached):
Please see attached diagram.

4. Proposed Casing & Cementing Program:
Please see attached table.

5. Drilling Fluids Program:
Well to be drilled using closed loop system.
Please see attached table.

6. Evaluation Program:
Mud logging program TBD. If any, loggers will be out before Top of Wasatch through TD.
Cased hole logs will be run from TD through surface casing.

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 10,300' TVD, approximately equals 6,592 psi, assuming 0.64 psi/ft bottom hole pressure gradient.

Maximum anticipated surface pressure equals approximately 4,326 psi, per Onshore Order No. 2 equation:
Max Anticipated Surface Pressure (MASP)

MASP = Pore Pressure at next csg point – (0.22 psi/ft X TVD of next csg point).
Where 0.22 psi/ft is the partially evacuated pressure gradient

8. Anticipated Starting Dates:

Drilling is planned to commence after approval of this application, pending winter location construction and drill timing.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order # 2 – Air Drilling Variance

Koch Exploration Company, LLC (KEC) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2:

- Blowout Prevention Equipment (BOPE) requirements
- Mud program requirements
- Special drilling operation (surface equipment placement) requirements associated with air drilling

This Standard Operating Practices addendum provides supporting information as to why KEC air drilling practices for constructing the surface hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rig follows the air rig, and is used to drill and construct the majority of the wellbore.

Background:

In a typical well, KEC would utilize an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which vary in depth from 2,000 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in the KEC operated field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill an 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with an 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8 5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KEC fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operation. However, the requirements of Onshore Order 2 are excessive with respect of the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KEC fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do no support the use of a BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud material shall be maintained or readily accessible for the purpose of assuming adequate well control. Once again, the surface hole drilling operation does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit, or from tanks spotted on location for closed loop drilling, for well control, if necessary. A skid pump which is near the reserve pit or tanks will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment replacement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit locations in the Natural Buttes area.

Typically, the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KEC well, the reserve pit or closed loop system is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit or discharge of the closed loop system, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KEC locations, the air rig compressor are approximately 10 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KEC also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when a FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures have effectively maintained well control while drilling the surface holes in the Natural Buttes field. KEC respectfully requests variance form Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

DIRECTIONS TO LOCATION:

Proceed in a westerly direction from Vernal, Utah, along U.S. Highway 40 approximately 13.9 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction along State Highway 88 approximately 16.8 miles to Ouray, Utah. From Ouray, proceed in a southerly direction along the Seep

Ridge Road (County B Road 2810) approximately 9.5 miles to the junction of Turkey Track Road (County B Road 5110). Exit right and proceed in a southerly direction along the Turkey Track Road approximately 1.6 miles to the junction of Willow Creek Road approximately 1.2 miles to the junction of Hill Creek Road (Tribal Road 5125). Exit right and proceed in a westerly then southerly direction along the Hill Creek Road approximately 0.5 miles to the junction of County Road 5220 (Class D). Exit right and proceed in a northerly then southwesterly direction along County Road 5220 approximately 6.9 miles to a second Class D County Road to the West. Exit right and proceed in a westerly then northwesterly direction along the second Class D County Road approximately 2.5 miles to a third Class D County Road to the southwest. Exit left and proceed in a southwesterly then northwesterly direction along the third Class D County Road approximately 0.6 miles to the proposed access road. Follow road flags in a westerly then northwesterly direction approximately 3,205 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 54.1 miles in a southwesterly direction.

WELL CONTROL

Pressure Control Equipment:

11" 5M with one annular and 2 rams.

BOP schematic attached.

BOP Testing:

BOP will be tested with a professional tester to conform to Onshore Order #2.

Blind and Pipe rams will be tested to rated working pressure, 5,000 psi.

Annular Preventer will be tested to 50% working pressure, 2,500 psi.

Casing will be tested to 0.22 psi / ft. or 1,500psi. Not to exceed 70% of burst strength, whichever is greater.

All lines subject to well pressure will be tested to the same pressure as the blind and pipe rams.

All BOPE specification and configurations will meet Onshore Order #2 requirements.

MUD LOGGING PROGRAM

GAS DETECTION: Continuous from spud to Total Depth.

Consulting geologist will be on location to evaluate samples at the Top of the Wasatch. Geologist to oversee sample collection as per following schedule:

Sample Collection:

<u>Interval</u>	<u>Depth</u>	<u>Sets</u>
30'	Surface Casing – TD	2

Or as directed by KEC personnel or site Geologist.

PROPOSED DIRECTIONAL PROGRAM

Directional well – Please see attached directional plan.

CASING PROGRAM

Casing String	Size	Weight	Grade	Thread	Depth	Bit Size	Casing Type
Conductor	14"				0 - 40'		New
Surface	8 5/8"	32#	J-55	LTC	+/-2500'	12 1/4"	New
Production	4 1/2"	11.6#	L-80	LTC	+/-10,300'	7 7/8"	New

Surface Casing:

Burst Assumption: Casing will be tested to 0.22 psi / ft. or 1,500psi. Not to exceed 70% of burst strength, whichever is greater.

0.73 psi/ft = frac gradient at surface shoe

Collapse Assumption: Fully evacuated casing with Max MW

Tension Assumption: Air weight of csg * Buoyancy factor of water

Production Casing:

Burst Assumption: will be tested during completion operations as needed for fracture stimulation design.

0.64 psi/ft = bottomhole frac gradient

Collapse Assumption: Fully evacuated casing with Max MW

Tension Assumption: Air weight of csg * Buoyancy factor of water

CEMENT PROGRAM

String	Design	Ft. of Fill	Description	Sacks	Excess	Weight (ppg)	Yield (ft ³ /sk)
Surface	Lead	1527'	Premium Type V Cement + 3% Salt + 0.25#/sk Flocele	231	40%	11.0	3.82
	Tail	975'	Premium Type G Cement + 2% CaCl + 0.25#/sk Flocele	473	35%	15.8	1.15
	Top Out Cement	200'	Premium Type G Cement + 2% CaCl + 0.25#/sk Flocele	100		15.8	1.15
Production	Lead	4008'	Conventional cmt + 1.0% extender + 0.7% retarder	612	35%	12.0	1.79
	Tail	6634'	Conventional cmt + 1.0% extender + 0.5% retarder	1428	35%	13.5	1.27

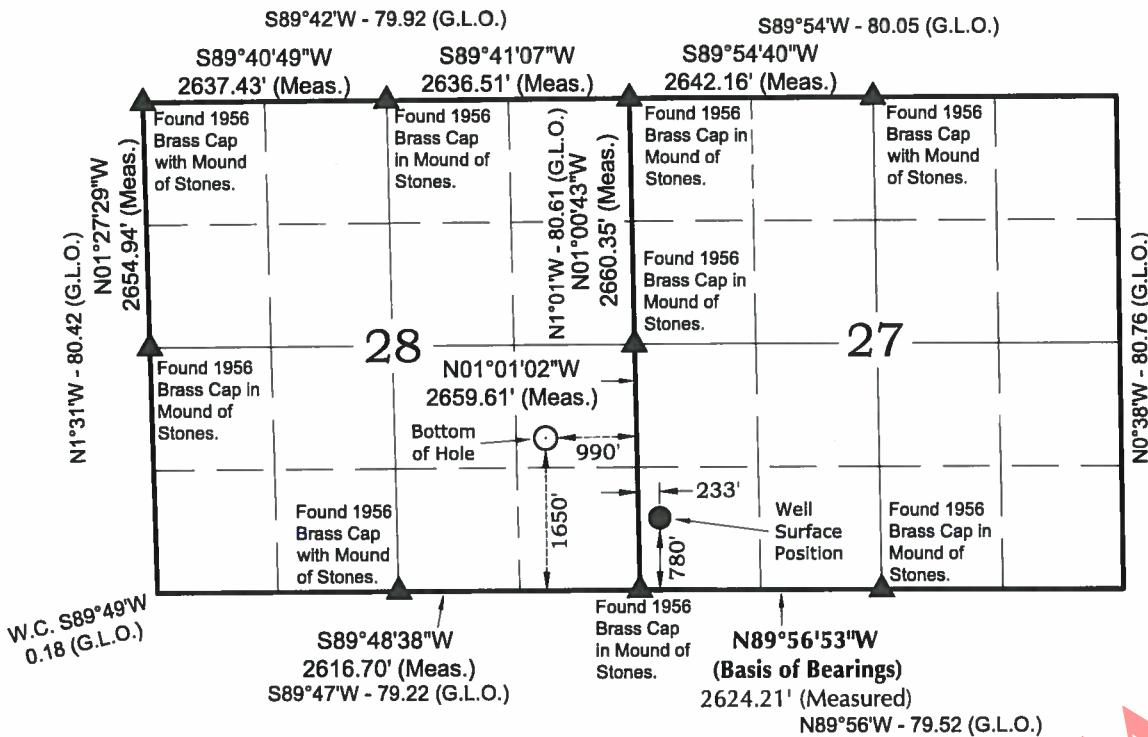
Float Equipment and Centralizers

Surface: Guide shoe, 1 jnt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.

Production: Float shoe, 2 jnt, float collar. Approximately 65 centralizers for Mesaverde wells, with 1 centralizer on the first 3 joints and one every third joint thereafter up through surface casing (2500').

MUD PROGRAM

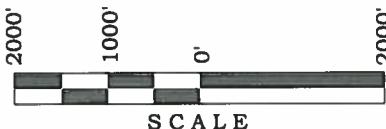
Hole Size and Casing Size (in)	Depth MD (ft)	Formation Depth (ft)	Formation Top	Mud System	Mud Weight (ppg)	Potential Issues
12 1/4"	40'	1,000'	Green River	Air Mist	N/A	Spud with 12 1/4" slim down to 11" at 200' Mud up if needed for Over pressured areas Expect Trona water flows in surface
8 5/8"	+/- 2500'	2500'	Surface TD			
7 7/8"				Drill with Gyp Water and high vis PHPA/Gel sweeps Gypsum increase the efficiency of dewatering Maintain 3ppb Gypsum to increase dewatering efficiency Additions of PHPA down drill pipe for hole cleaning pH maintained @ 9.0-10.0 Low Fluid loss after mud up with PAC material Adjust viscosity utilizing gel - maintain vis 38-42 sec/qt	8.8-9.0 9.4-9.8 9.9-11.0 11.5-11.7 12.5-13.0	Hydrateable Clays within the Shale Potential Gas - mud up SS in Upper portion Ledge Forming Containing Coal seams Slower Drilling
4 1/2"	10,300' TVD 10,646' MD	10,300' TVD	Production TD	Increase viscosity @ TD to 50-60 sec/qt for logging. Chemically thin for CMT		

T10S, R19E, S.L.B.&M.

WELL LOCATION:
NORTH ALGER 27-41I
ELEV. UNGRADED GROUND = 5258.3'

NORTH ALGER 27-41I (Surface Position)
NAD 83 LATITUDE = 39.912996° (39° 54' 46.785")
LONGITUDE = 109.776607° (109° 46' 35.785")
NAD 27 LATITUDE = 39.913031° (39° 54' 46.912")
LONGITUDE = 109.775911° (109° 46' 33.279")

NORTH ALGER 27-41I (Bottom Hole)
NAD 83 LATITUDE = 39.915373° (39° 54' 55.345")
LONGITUDE = 109.781022° (109° 46' 51.680")
NAD 27 LATITUDE = 39.915409° (39° 54' 55.472")
LONGITUDE = 109.780326° (109° 46' 49.173")

**NOTES:**

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears N55°01'35"W 1511.73' from the Surface Position.
- 4. Basis of elevation is the South 1/4 Corner of Section 27, T10S, R19E, S.L.B.&M. (Being a 1956 Brass Cap). The elevation of this Section Corner was Calculated using an NGS OPUS Solution report to be 5279.5' (NAVD 88).

Koch Exploration Company, LLC
950 17th Street, Suite 1900 - Denver, Colorado 80202

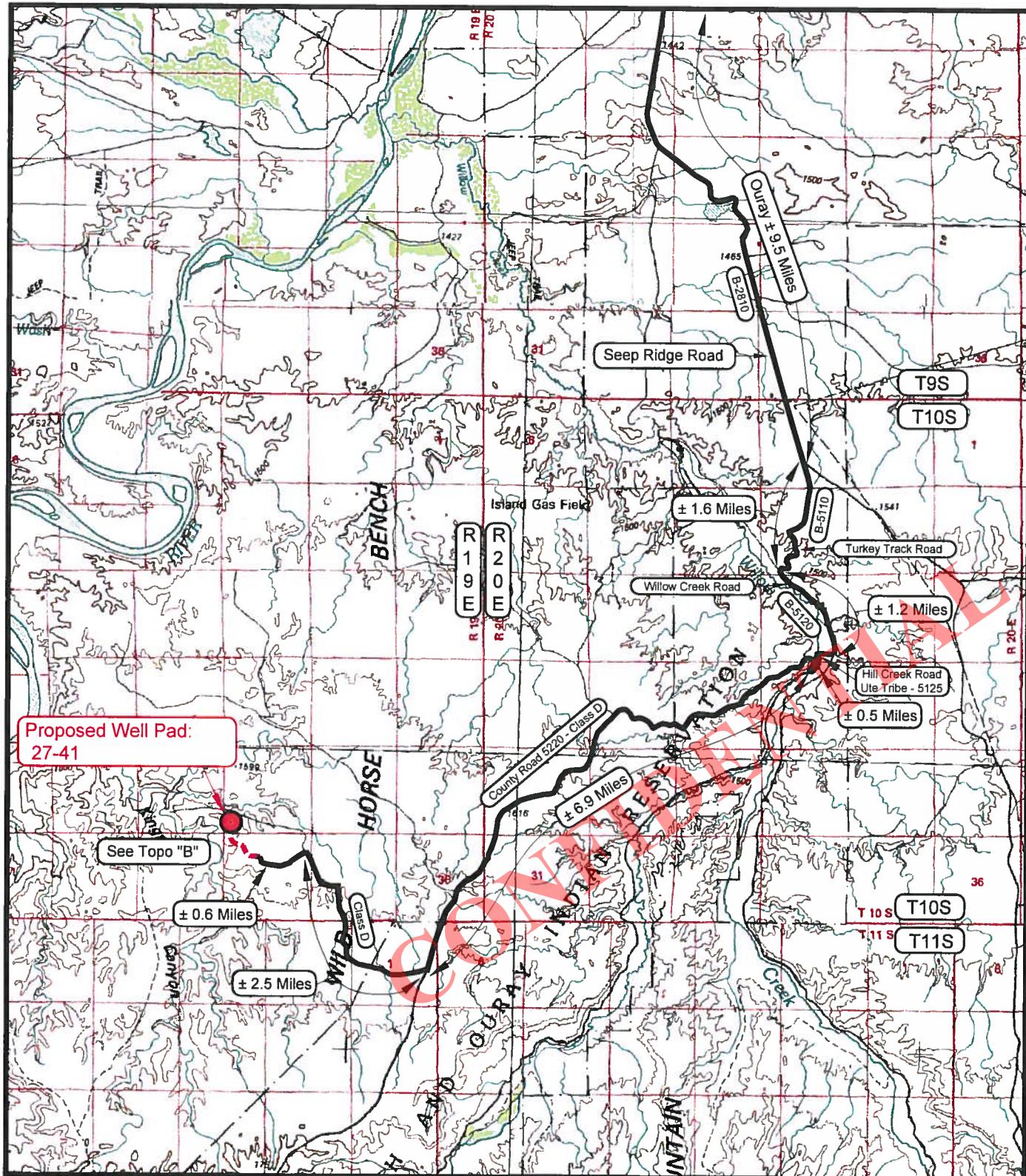
WELL PAD: 27-41**NORTH ALGER 27-41I****WELL PLAT****1650' FSL, 990' FEL (Bottom Hole)****NE ¼ SE ¼ OF SECTION 28, T10S, R19E,
S.L.B.&M., UNTAH COUNTY, UTAH.**

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST — VERNAL, UTAH 84078

DATE SURVEYED: 1-31-13	SURVEYED BY: A.F.	SHEET NO: 2J OF 12
DATE DRAWN: 8-15-13	DRAWN BY: T.J.R.	
SCALE: 1" = 2000'	Date Last Revised:	

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

JOHN R. LAUGH
P.R.S.



LEGEND

- PROPOSED ACCESS ROAD
 - = SUBJECT WELL
 - = OTHER WELLS
 - = EXISTING ROAD
 - = EXISTING ROAD (TO BE IMPROVED)

B-5460 = COUNTY ROAD CLASS & NUMBER

Koch Exploration Company, LLC

WELL PAD - 27-41
WELLS - NORTH ALGER 27-41D, NORTH ALGER 27-41C,
NORTH ALGER 27-41E, NORTH ALGER 27-41B, NORTH ALGER 27-41F,
NORTH ALGER 27-41A, NORTH ALGER 27-41H, NORTH ALGER 27-41G,
NORTH ALGER 27-41J & NORTH ALGER 27-41I
LOCATED IN SECTION 27, T10S, R19E, S.L.B.&M.,
UINTAH COUNTY, UTAH.



TOPOGRAPHIC MAP "A"

DATE SURVEYED: 1-31-13

SCALE: 1:100,000

DRAWN BY: C.T.C

DATE DRAWN: 2-11-13

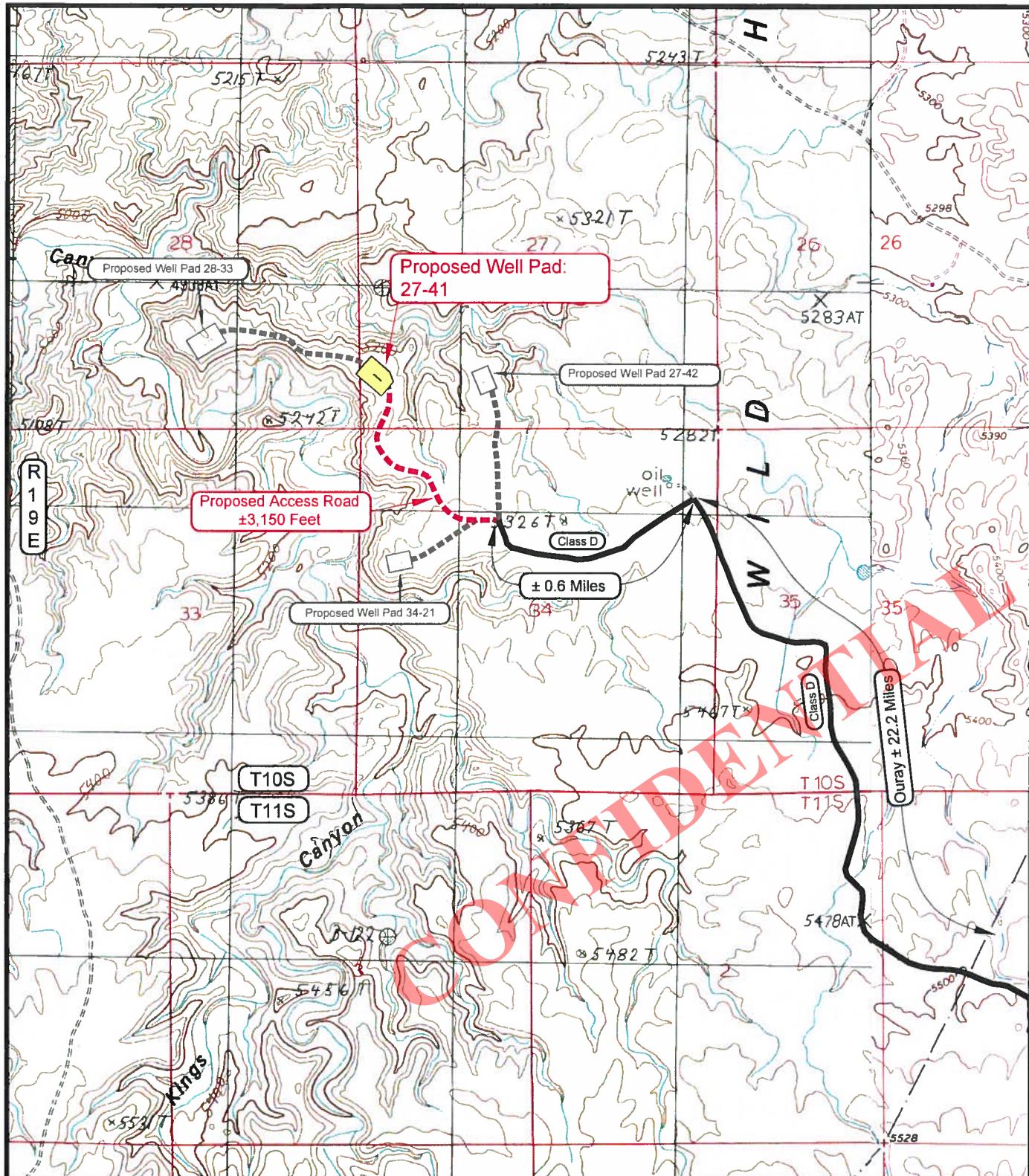
REVISED: 8-15-13 M.W.W.

TIMBERLINE

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

SHEET
8
OF 12

**Koch Exploration Company, LLC****WELL PAD - 27-41**

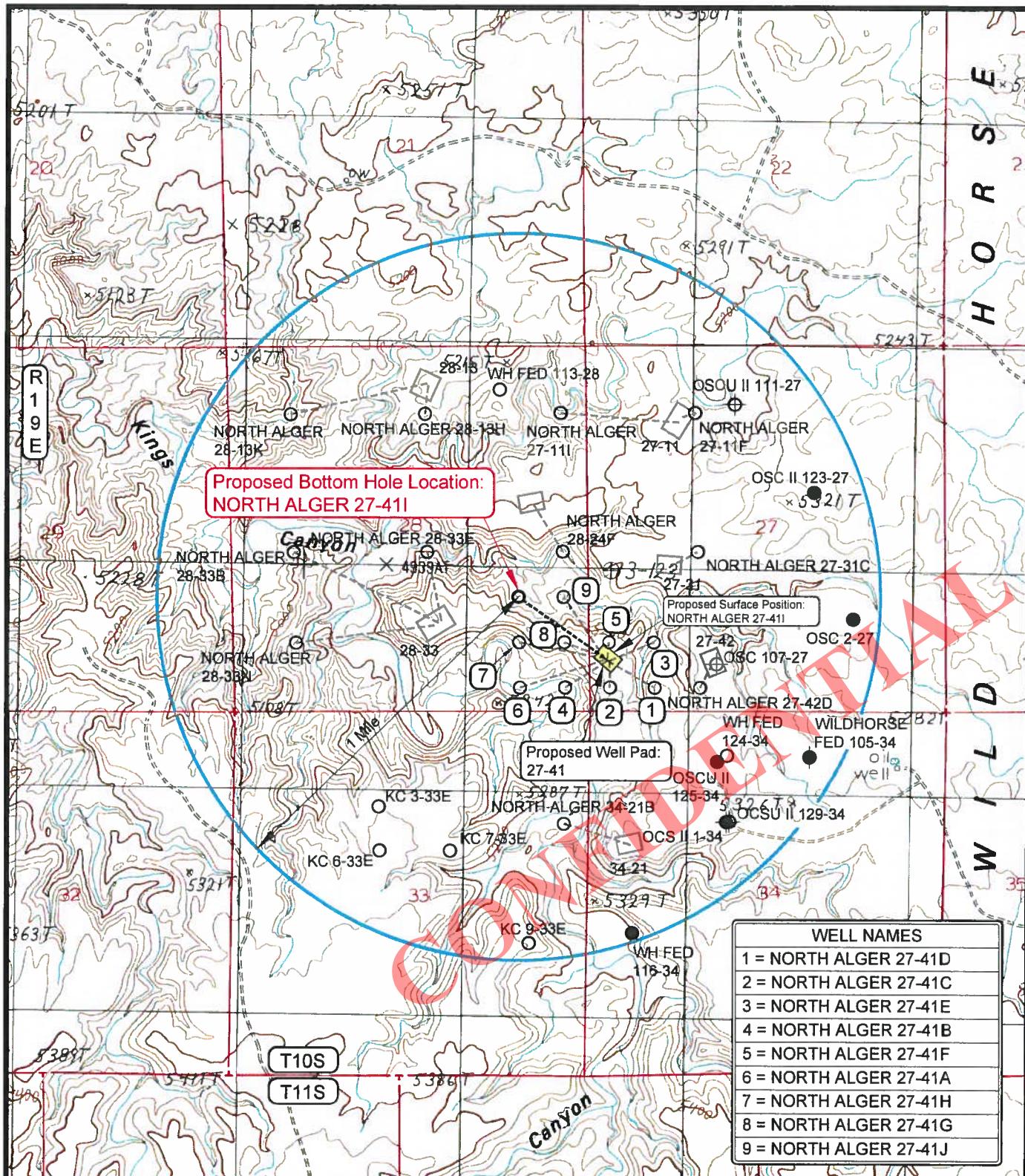
**WELLS - NORTH ALGER 27-41D, NORTH ALGER 27-41C,
NORTH ALGER 27-41E, NORTH ALGER 27-41B, NORTH ALGER 27-41F,
NORTH ALGER 27-41A, NORTH ALGER 27-41H, NORTH ALGER 27-41G,
NORTH ALGER 27-41J & NORTH ALGER 27-41I
LOCATED IN SECTION 27, T10S, R19E, S.L.B.&M.,
UINTAH COUNTY, UTAH.**

**TOPOGRAPHIC MAP "B"**

(B-5460) = COUNTY ROAD CLASS & NUMBER
— = LEASE LINE AND / OR PROPERTY LINE

DATE SURVEYED: 1-31-13**DATE DRAWN: 2-11-13****SCALE: 1" = 2000'****DRAWN BY: C.T.C****REVISED: 8-15-13 M.W.W.****(435) 789-1365****SHEET****9
OF 12****TIMBERLINE**

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

**LEGEND**

- | | |
|--------------------|--------------------------------|
| ○ = DISPOSAL WELL | ○ = WATER WELL |
| ● = PRODUCING WELL | ● = ABANDONED WELL |
| ● = SHUT IN WELL | ● = TEMPORARILY ABANDONED WELL |
| ○ = PROPOSED WELL | ○ = ABANDONED LOCATION |

Koch Exploration Company, LLC

**WELL PAD - 27-41
NORTH ALGER 27-41I
1650' FSL & 990' FEL (Bottom Hole)
LOCATED IN SECTION 28, T10S, R19E,
S.L.B.&M., UNTAH COUNTY, UTAH.**

TOPOGRAPHIC MAP "C"	DATE SURVEYED: 1-31-13
	DATE DRAWN: 8-15-13
SCALE: 1" = 2000'	DRAWN BY: M.W.W.

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

SHEET
10J
OF 12

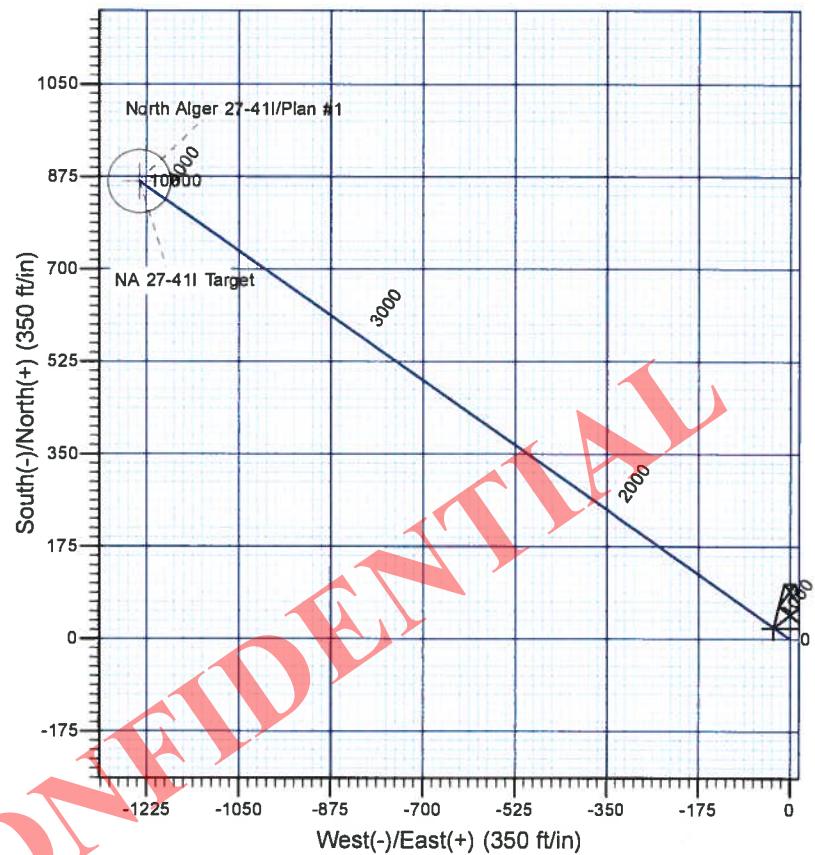
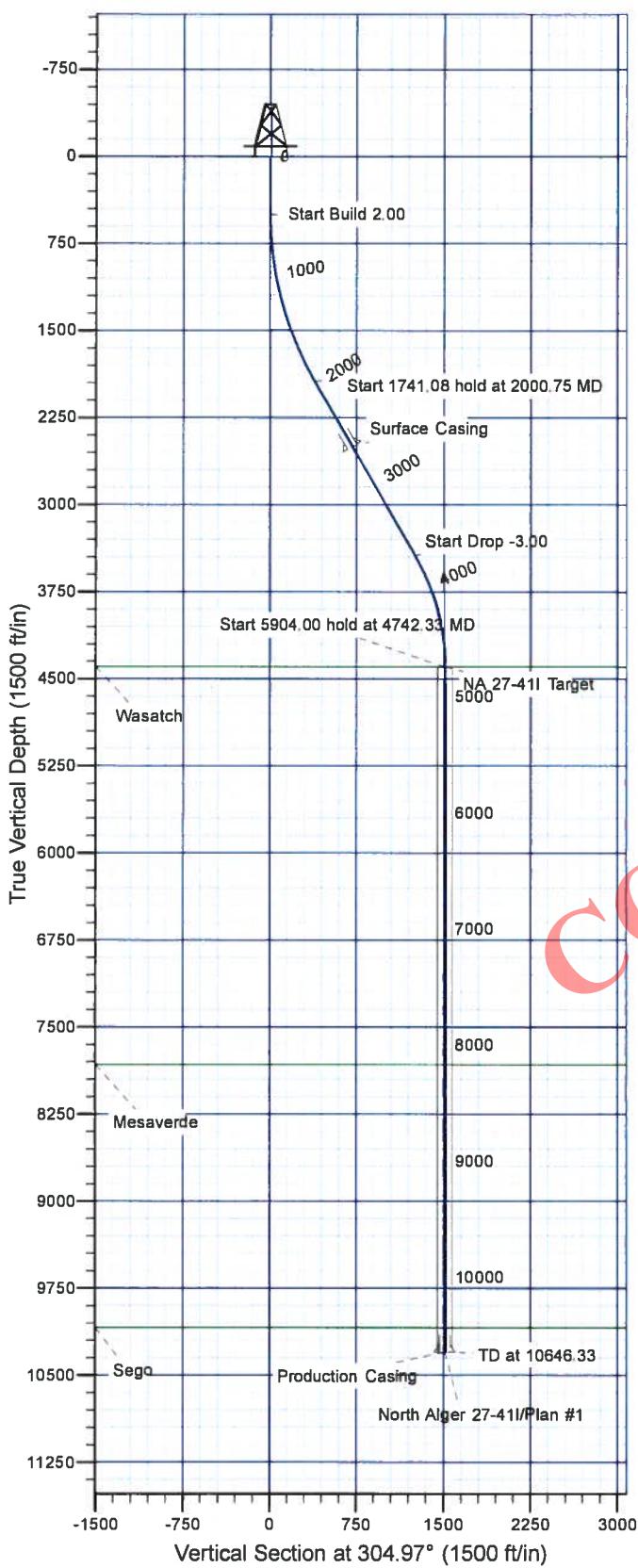
Company: Koch Exploration Co. LLC
 Project: Uintah County, UT
 Site: NA 27-41 Pad



Well Details: North Alger 27-41I

TVD Reference: GL 5257' @ 5257.00ft
 +N-S 0.00 +E/W 0.00 Northing 580028.30
 Easting 2483572.44 Latitude 39° 54' 46.911 N
 Longitude 109° 46' 33.280 W

T Azimuths to True North
M Magnetic North: 10.99°
 Magnetic Field Strength: 51959.4snT
 Dip Angle: 65.68°
 Date: 7/12/2013
 Model: BGGM2013



FORMATION TOP DETAILS							Plan: Plan #1						
TVDPath							13:04, July 15 2013						
4396 00							Created By: Janie Collins						
7825 00							PROJECT DETAILS: Uintah County, UT						
10091 00							Geodetic System: US State Plane 1927 (Exact solution) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: Utah Central 4302						
							System Datum: Mean Sea Level						
SECTION DETAILS													
Sec	MD	Inc	Azi	TVD	+N-S	+E/W	Dleg	TFace	VSecd	Target			
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	2000.75	30.02	304.97	1933.04	220.21	-314.81	2.00	304.97	384.18				
4	3741.83	30.02	304.97	3440.64	719.41	-1028.48	0.00	0.00	0.00	0.001255.12			
5	4742.33	0.00	0.00	4396.00	866.22	-1238.36	3.00	180.00	1511.24	NA 27-41I Target			
6	10646.33	0.00	0.00	10300.00	866.22	-1238.36	0.00	0.00	0.00	0.001511.24			

Koch Exploration Co. LLC

Uintah County, UT
NA 27-41 Pad
North Alger 27-41I - Slot I

OH

Plan: Plan #1

Standard Planning Report

15 July, 2013

CONFIDENTIAL



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Planning Report



Database:	Grand Junction District	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I							
Company:	Koch Exploration Co. LLC	TVD Reference:	GL 5257' @ 5257.00ft							
Project:	Uintah County, UT	MD Reference:	GL 5257' @ 5257.00ft							
Site:	NA 27-41 Pad	North Reference:	True							
Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature							
Wellbore:	OH									
Design:	Plan #1									
Project	Uintah County, UT									
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level							
Geo Datum:	NAD 1927 (NADCON CONUS)									
Map Zone:	Utah Central 4302									
Site	NA 27-41 Pad									
Site Position:		Northing:	579,989.88 usft							
From:	Lat/Long	Easting:	2,483,618.63 usft							
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in							
			Latitude: 39° 54' 46.523 N							
			Longitude: 109° 46' 32.696 W							
			Grid Convergence: 1.10 °							
Well	North Alger 27-41I - Slot I									
Well Position	+N/S +E/W	39.31 ft -45.44 ft	Northing: 580,028.30 usft Easting: 2,483,572.44 usft							
Position Uncertainty	0.00 ft		Latitude: 39° 54' 46.911 N Longitude: 109° 46' 33.280 W							
			Wellhead Elevation: Ground Level: 5,257.00 ft							
Wellbore	OH									
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)					
	BGGM2013	7/12/2013	10.99	65.68	51,959					
Design	Plan #1									
Audit Notes:										
Version:		Phase:	PLAN	Tie On Depth:	0.00					
Vertical Section:		Depth From (TVD) (ft)	+N/S (ft)	+E/W (ft)	Direction (°)					
		0.00	0.00	0.00	304.97					
Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.75	30.02	304.97	1,933.04	220.21	-314.81	2.00	2.00	0.00	304.97	
3,741.83	30.02	304.97	3,440.64	719.41	-1,028.48	0.00	0.00	0.00	0.00	
4,742.33	0.00	0.00	4,396.00	866.22	-1,238.36	3.00	-3.00	0.00	180.00	NA 27-41I Target
10,646.33	0.00	0.00	10,300.00	866.22	-1,238.36	0.00	0.00	0.00	0.00	

Planning Report



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Company:	Koch Exploration Co. LLC	TVD Reference:	GL 5257' @ 5257.00ft
Project:	Uintah County, UT	MD Reference:	GL 5257' @ 5257.00ft
Site:	NA 27-41 Pad	North Reference:	True
Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (")	Azimuth (")	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate ("/100ft)	Build Rate ("/100ft)	Turn Rate ("/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	2.00	304.97	599.98	1.00	-1.43	1.75	2.00	2.00	0.00
700.00	4.00	304.97	699.84	4.00	-5.72	6.98	2.00	2.00	0.00
800.00	6.00	304.97	799.45	9.00	-12.86	15.69	2.00	2.00	0.00
900.00	8.00	304.97	898.70	15.98	-22.85	27.88	2.00	2.00	0.00
1,000.00	10.00	304.97	997.47	24.95	-35.66	43.52	2.00	2.00	0.00
1,100.00	12.00	304.97	1,095.62	35.88	-51.30	62.60	2.00	2.00	0.00
1,200.00	14.00	304.97	1,193.06	48.78	-69.73	85.10	2.00	2.00	0.00
1,300.00	16.00	304.97	1,289.64	63.61	-90.94	110.98	2.00	2.00	0.00
1,400.00	18.00	304.97	1,385.27	80.37	-114.89	140.21	2.00	2.00	0.00
1,500.00	20.00	304.97	1,479.82	99.03	-141.57	172.77	2.00	2.00	0.00
1,600.00	22.00	304.97	1,573.17	119.57	-170.94	208.60	2.00	2.00	0.00
1,700.00	24.00	304.97	1,665.21	141.96	-202.95	247.67	2.00	2.00	0.00
1,800.00	26.00	304.97	1,755.84	166.18	-237.58	289.93	2.00	2.00	0.00
1,900.00	28.00	304.97	1,844.94	192.21	-274.78	335.33	2.00	2.00	0.00
2,000.00	30.00	304.97	1,932.39	219.99	-314.50	383.81	2.00	2.00	0.00
2,000.75	30.02	304.97	1,933.04	220.21	-314.81	384.18	2.00	2.00	0.00
2,100.00	30.02	304.97	2,018.98	248.66	-355.49	433.83	0.00	0.00	0.00
2,200.00	30.02	304.97	2,105.57	277.34	-396.48	483.85	0.00	0.00	0.00
2,300.00	30.02	304.97	2,192.16	306.01	-437.47	533.88	0.00	0.00	0.00
2,400.00	30.02	304.97	2,278.75	334.68	-478.46	583.90	0.00	0.00	0.00
2,500.00	30.02	304.97	2,365.34	363.35	-519.45	633.92	0.00	0.00	0.00
2,600.00	30.02	304.97	2,451.93	392.02	-560.44	683.94	0.00	0.00	0.00
2,655.51	30.02	304.97	2,500.00	407.94	-583.20	711.71	0.00	0.00	0.00
Surface Casing									
2,700.00	30.02	304.97	2,538.52	420.70	-601.43	733.97	0.00	0.00	0.00
2,800.00	30.02	304.97	2,625.11	449.37	-642.42	783.99	0.00	0.00	0.00
2,900.00	30.02	304.97	2,711.70	478.04	-683.41	834.01	0.00	0.00	0.00
3,000.00	30.02	304.97	2,798.29	506.71	-724.40	884.04	0.00	0.00	0.00
3,100.00	30.02	304.97	2,884.88	535.38	-765.39	934.06	0.00	0.00	0.00
3,200.00	30.02	304.97	2,971.47	564.06	-806.38	984.08	0.00	0.00	0.00
3,300.00	30.02	304.97	3,058.06	592.73	-847.37	1,034.10	0.00	0.00	0.00
3,400.00	30.02	304.97	3,144.65	621.40	-888.36	1,084.13	0.00	0.00	0.00
3,500.00	30.02	304.97	3,231.24	650.07	-929.35	1,134.15	0.00	0.00	0.00
3,600.00	30.02	304.97	3,317.83	678.75	-970.34	1,184.17	0.00	0.00	0.00
3,700.00	30.02	304.97	3,404.42	707.42	-1,011.33	1,234.19	0.00	0.00	0.00
3,741.83	30.02	304.97	3,440.64	719.41	-1,028.48	1,255.12	0.00	0.00	0.00
3,800.00	28.27	304.97	3,491.44	735.65	-1,051.69	1,283.45	3.00	-3.00	0.00
3,900.00	25.27	304.97	3,580.71	761.46	-1,088.60	1,328.48	3.00	-3.00	0.00
4,000.00	22.27	304.97	3,672.22	784.56	-1,121.62	1,368.78	3.00	-3.00	0.00
4,100.00	19.27	304.97	3,765.71	804.89	-1,150.68	1,404.24	3.00	-3.00	0.00
4,200.00	16.27	304.97	3,860.93	822.38	-1,175.68	1,434.76	3.00	-3.00	0.00
4,300.00	13.27	304.97	3,957.61	836.99	-1,196.57	1,460.25	3.00	-3.00	0.00
4,400.00	10.27	304.97	4,055.50	848.68	-1,213.28	1,480.64	3.00	-3.00	0.00
4,500.00	7.27	304.97	4,154.32	857.42	-1,225.77	1,495.89	3.00	-3.00	0.00
4,600.00	4.27	304.97	4,253.80	863.18	-1,234.01	1,505.94	3.00	-3.00	0.00
4,700.00	1.27	304.97	4,353.67	865.95	-1,237.97	1,510.77	3.00	-3.00	0.00
4,742.33	0.00	0.00	4,396.00	866.22	-1,238.36	1,511.24	3.00	-3.00	0.00

Wasatch - NA 27-41I Target

Planning Report



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Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (*100ft)	Turn Rate (*100ft)
4,800.00	0.00	0.00	4,453.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
4,900.00	0.00	0.00	4,553.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,000.00	0.00	0.00	4,653.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,100.00	0.00	0.00	4,753.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,200.00	0.00	0.00	4,853.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,300.00	0.00	0.00	4,953.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,400.00	0.00	0.00	5,053.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,500.00	0.00	0.00	5,153.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,600.00	0.00	0.00	5,253.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,700.00	0.00	0.00	5,353.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,800.00	0.00	0.00	5,453.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
5,900.00	0.00	0.00	5,553.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,000.00	0.00	0.00	5,653.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,100.00	0.00	0.00	5,753.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,200.00	0.00	0.00	5,853.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,300.00	0.00	0.00	5,953.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,400.00	0.00	0.00	6,053.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,500.00	0.00	0.00	6,153.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,600.00	0.00	0.00	6,253.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,700.00	0.00	0.00	6,353.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,800.00	0.00	0.00	6,453.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
6,900.00	0.00	0.00	6,553.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,000.00	0.00	0.00	6,653.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,100.00	0.00	0.00	6,753.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,200.00	0.00	0.00	6,853.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,300.00	0.00	0.00	6,953.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,400.00	0.00	0.00	7,053.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,500.00	0.00	0.00	7,153.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,600.00	0.00	0.00	7,253.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,700.00	0.00	0.00	7,353.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,800.00	0.00	0.00	7,453.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
7,900.00	0.00	0.00	7,553.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,000.00	0.00	0.00	7,653.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,100.00	0.00	0.00	7,753.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,171.33	0.00	0.00	7,825.00	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
Mesaverde									
8,200.00	0.00	0.00	7,853.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,300.00	0.00	0.00	7,953.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,400.00	0.00	0.00	8,053.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,500.00	0.00	0.00	8,153.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,600.00	0.00	0.00	8,253.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,700.00	0.00	0.00	8,353.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,800.00	0.00	0.00	8,453.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
8,900.00	0.00	0.00	8,553.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,000.00	0.00	0.00	8,653.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,100.00	0.00	0.00	8,753.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,200.00	0.00	0.00	8,853.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,300.00	0.00	0.00	8,953.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,400.00	0.00	0.00	9,053.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,500.00	0.00	0.00	9,153.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,600.00	0.00	0.00	9,253.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,700.00	0.00	0.00	9,353.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,800.00	0.00	0.00	9,453.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00
9,900.00	0.00	0.00	9,553.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00

Planning Report



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Company:	Koch Exploration Co, LLC	TVD Reference:	GL 5257' @ 5257.00ft
Project:	Uintah County, UT	MD Reference:	GL 5257' @ 5257.00ft
Site:	NA 27-41 Pad	North Reference:	True
Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)	Build Rate (/100ft)	Turn Rate (/100ft)	
10,000.00	0.00	0.00	9,653.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,753.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,853.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,300.00	0.00	0.00	9,953.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,053.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,437.33	0.00	0.00	10,091.00	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
Sego										
10,500.00	0.00	0.00	10,153.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,253.67	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
10,646.33	0.00	0.00	10,300.00	866.22	-1,238.36	1,511.24	0.00	0.00	0.00	
Production Casing										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/S (ft)	+E/W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
NA 27-41I Target - plan hits target center - Circle (radius 60.00)	0.00	0.00	4,396.00	866.22	-1,238.36	580,870.49	2,482,317.62	39° 54' 55.472 N	109° 46' 49.174 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (in)	Hole Diameter (in)	
2,655.51	2,500.00	Surface Casing		8.625	12.250	
10,646.33	10,300.00	Production Casing		4.500	7.875	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,742.33	4,396.00	Wasatch		0.00		
8,171.33	7,825.00	Mesaverde		0.00		
10,437.33	10,091.00	Sego		0.00		

Koch Exploration Co. LLC

Uintah County, UT
NA 27-41 Pad
North Alger 27-41I

OH
Plan #1

Anticollision Report

15 July, 2013

CONFIDENTIAL



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Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference	Plan #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	Systematic Ellipse
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program		Date	7/15/2013	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,646.33	Plan #1 (OH)	Gyro	

Site Name	Offset Well - Wellbore - Design	Reference	Offset	Distance			Warning
		Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor	
NA 27-41 Pad							
North Alger 27-41A - OH - Plan #1		0.00	0.00	60.10	60.10	10,000.000 SF	
North Alger 27-41A - OH - Plan #1		500.00	500.00	60.10	60.10	10,000.000 CC, ES	
North Alger 27-41B - OH - Plan #1		0.00	0.00	90.15	90.15	10,000.000 SF	
North Alger 27-41B - OH - Plan #1		500.00	500.00	90.15	90.15	10,000.000 CC, ES	
North Alger 27-41C - OH - Plan #1		0.00	0.00	119.97	119.97	10,000.000 SF	
North Alger 27-41C - OH - Plan #1		500.00	500.00	119.97	119.97	10,000.000 CC, ES	
North Alger 27-41D - OH - Plan #1		0.00	0.00	134.89	134.89	10,000.000 SF	
North Alger 27-41D - OH - Plan #1		500.00	500.00	134.89	134.89	10,000.000 CC, ES	
North Alger 27-41E - OH - Plan #1		0.00	0.00	105.07	105.07	10,000.000 SF	
North Alger 27-41E - OH - Plan #1		500.00	500.00	105.07	105.07	10,000.000 CC, ES	
North Alger 27-41F - OH - Plan #1		0.00	0.00	75.02	75.02	10,000.000 SF	
North Alger 27-41F - OH - Plan #1		500.00	500.00	75.02	75.02	10,000.000 CC, ES	
North Alger 27-41G - OH - Plan #1		0.00	0.00	30.05	30.05	10,000.000 SF	
North Alger 27-41G - OH - Plan #1		500.00	500.00	30.05	30.05	10,000.000 CC, ES	
North Alger 27-41H - OH - Plan #1		0.00	0.00	45.18	45.18	10,000.000 SF	
North Alger 27-41H - OH - Plan #1		500.00	500.00	45.18	45.18	10,000.000 CC, ES	
North Alger 27-41I - OH - Plan #1		0.00	0.00	15.13	15.13	10,000.000 SF	
North Alger 27-41I - OH - Plan #1		500.00	500.00	15.13	15.13	10,000.000 CC, ES	

Offset Design		NA 27-41 Pad - North Alger 27-41A - OH - Plan #1										Offset Site Error:	0.00 ft
Survey Program:		0-Gyro										Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Hightside Toolface	Offset Wellbore Centre +N/S (ft)	Offset Wellbore Centre +E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	130.88	-39.34	45.44	60.10	60.10	0.00	N/A	SF	
100.00	100.00	100.00	100.00	0.00	130.88	-39.34	45.44	60.10	60.10	0.00	N/A		
200.00	200.00	200.00	200.00	0.00	130.88	-39.34	45.44	60.10	60.10	0.00	N/A		
300.00	300.00	300.00	300.00	0.00	130.88	-39.34	45.44	60.10	60.10	0.00	N/A		
400.00	400.00	400.00	400.00	0.00	130.88	-39.34	45.44	60.10	60.10	0.00	N/A		
500.00	500.00	500.00	500.00	0.00	130.88	-39.34	45.44	60.10	60.10	0.00	N/A	CC, ES	
600.00	599.98	601.06	601.04	0.00	-172.82	-39.89	43.75	60.95	60.95	0.00	N/A		
700.00	699.84	701.98	701.81	0.00	-169.23	-41.56	38.68	63.64	63.64	0.00	N/A		
800.00	799.45	802.59	802.03	0.00	-163.92	-44.32	30.27	68.63	68.63	0.00	N/A		
900.00	898.70	902.76	901.44	0.00	-157.75	-48.16	18.59	76.41	76.41	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41A - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Reference Offset		Semi Major Axis			Distance							Warning
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centres +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,000.00	997.47	1,002.35	999.78	0.00	-151.51	-53.05	3.70	87.40	87.40	0.00	N/A			
1,100.00	1,095.62	1,101.21	1,096.81	0.00	-145.79	-58.96	-14.27	101.82	101.82	0.00	N/A			
1,200.00	1,193.06	1,199.23	1,192.31	0.00	-140.83	-65.84	-35.23	119.70	119.70	0.00	N/A			
1,300.00	1,289.64	1,296.28	1,286.07	0.00	-136.65	-73.66	-59.02	140.98	140.98	0.00	N/A			
1,400.00	1,385.27	1,392.26	1,377.91	0.00	-133.18	-82.36	-85.50	165.52	165.52	0.00	N/A			
1,500.00	1,479.82	1,487.07	1,467.65	0.00	-130.29	-91.89	-114.52	193.21	193.21	0.00	N/A			
1,600.00	1,573.17	1,580.61	1,555.17	0.00	-127.87	-102.20	-145.90	223.90	223.90	0.00	N/A			
1,700.00	1,665.21	1,672.82	1,640.33	0.00	-125.80	-113.23	-179.47	257.48	257.48	0.00	N/A			
1,800.00	1,755.84	1,763.62	1,723.04	0.00	-124.00	-124.93	-215.05	293.82	293.82	0.00	N/A			
1,900.00	1,844.94	1,855.65	1,806.20	0.00	-122.63	-137.23	-252.52	332.45	332.45	0.00	N/A			
2,000.75	1,933.04	1,947.81	1,889.47	0.00	-121.83	-149.56	-290.03	373.15	373.15	0.00	N/A			
2,100.00	2,018.98	2,038.22	1,971.15	0.00	-122.03	-161.65	-326.84	414.09	414.09	0.00	N/A			
2,200.00	2,105.57	2,129.31	2,053.46	0.00	-122.19	-173.84	-363.92	455.34	455.34	0.00	N/A			
2,300.00	2,192.16	2,220.39	2,135.76	0.00	-122.32	-186.02	-401.00	496.59	496.59	0.00	N/A			
2,400.00	2,278.75	2,311.48	2,218.06	0.00	-122.43	-198.20	-438.08	537.85	537.85	0.00	N/A			
2,500.00	2,365.34	2,402.57	2,300.36	0.00	-122.53	-210.39	-475.17	579.10	579.10	0.00	N/A			
2,600.00	2,451.93	2,493.66	2,382.66	0.00	-122.61	-222.57	-512.25	620.36	620.36	0.00	N/A			
2,700.00	2,538.52	2,584.75	2,464.97	0.00	-122.69	-234.76	-549.33	661.62	661.62	0.00	N/A			
2,800.00	2,625.11	2,675.84	2,547.27	0.00	-122.75	-246.94	-586.41	702.88	702.88	0.00	N/A			
2,900.00	2,711.70	2,766.93	2,629.57	0.00	-122.81	-259.12	-623.50	744.14	744.14	0.00	N/A			
3,000.00	2,798.28	2,858.02	2,711.87	0.00	-122.86	-271.31	-660.58	785.40	785.40	0.00	N/A			
3,100.00	2,884.88	2,949.10	2,794.17	0.00	-122.91	-283.49	-697.66	826.66	826.66	0.00	N/A			
3,200.00	2,971.47	3,040.19	2,876.48	0.00	-122.95	-295.67	-734.74	867.92	867.92	0.00	N/A			
3,300.00	3,058.06	3,131.28	2,958.78	0.00	-122.99	-307.86	-771.82	909.19	909.19	0.00	N/A			
3,400.00	3,144.65	3,222.37	3,041.08	0.00	-123.02	-320.04	-808.91	950.45	950.45	0.00	N/A			
3,500.00	3,231.24	3,313.46	3,123.38	0.00	-123.06	-332.22	-845.99	991.71	991.71	0.00	N/A			
3,600.00	3,317.83	3,404.55	3,205.68	0.00	-123.08	-344.41	-883.07	1,032.97	1,032.97	0.00	N/A			
3,700.00	3,404.42	3,495.64	3,287.99	0.00	-123.11	-356.59	-920.15	1,074.24	1,074.24	0.00	N/A			
3,741.83	3,440.64	3,533.74	3,322.41	0.00	-123.12	-361.69	-935.67	1,091.50	1,091.50	0.00	N/A			
3,800.00	3,491.44	3,586.92	3,370.46	0.00	-123.74	-368.80	-957.32	1,115.06	1,115.06	0.00	N/A			
3,900.00	3,580.71	3,679.15	3,453.80	0.00	-124.54	-381.14	-994.86	1,153.44	1,153.44	0.00	N/A			
4,000.00	3,672.22	3,772.19	3,537.86	0.00	-125.05	-393.58	-1,032.74	1,189.11	1,189.11	0.00	N/A			
4,100.00	3,765.71	3,881.86	3,637.87	0.00	-125.26	-407.62	-1,075.46	1,221.54	1,221.54	0.00	N/A			
4,200.00	3,860.93	3,998.12	3,746.50	0.00	-125.43	-420.54	-1,114.79	1,249.66	1,249.66	0.00	N/A			
4,300.00	3,957.81	4,117.22	3,860.17	0.00	-125.57	-431.61	-1,148.49	1,273.25	1,273.25	0.00	N/A			
4,400.00	4,055.50	4,238.72	3,978.18	0.00	-125.69	-440.61	-1,175.86	1,292.14	1,292.14	0.00	N/A			
4,500.00	4,154.32	4,362.13	4,099.68	0.00	-125.80	-447.33	-1,196.32	1,306.22	1,306.22	0.00	N/A			
4,600.00	4,253.80	4,486.88	4,223.65	0.00	-125.89	-451.62	-1,209.38	1,315.37	1,315.37	0.00	N/A			
4,700.00	4,353.67	4,612.36	4,348.97	0.00	-125.97	-453.38	-1,214.73	1,319.54	1,319.54	0.00	N/A			
4,742.33	4,396.00	4,659.38	4,396.00	0.00	-126.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
4,800.00	4,453.67	4,717.05	4,453.67	0.00	-127.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
4,900.00	4,553.67	4,817.05	4,553.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,000.00	4,653.67	4,917.05	4,653.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,100.00	4,753.67	5,017.05	4,753.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,200.00	4,853.67	5,117.05	4,853.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,300.00	4,953.67	5,217.05	4,953.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,400.00	5,053.67	5,317.05	5,053.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,500.00	5,153.67	5,417.05	5,153.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,600.00	5,253.67	5,517.05	5,253.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,700.00	5,353.67	5,617.05	5,353.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,800.00	5,453.67	5,717.05	5,453.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			
5,900.00	5,553.67	5,817.05	5,553.67	0.00	-128.98	-453.42	-1,214.86	1,319.85	1,319.85	0.00	N/A			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41A - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Hightside Toolface (°)	Offset Wellbore Centres +N+S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
6,000.00	5,653.67	5,917.05	5,653.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,100.00	5,753.67	6,017.05	5,753.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,200.00	5,853.67	6,117.05	5,853.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,300.00	5,953.67	6,217.05	5,953.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,400.00	6,053.67	6,317.05	6,053.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,500.00	6,153.67	6,417.05	6,153.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,600.00	6,253.67	6,517.05	6,253.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,700.00	6,353.67	6,617.05	6,353.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,800.00	6,453.67	6,717.05	6,453.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
6,900.00	6,553.67	6,817.05	6,553.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,000.00	6,653.67	6,917.05	6,653.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,100.00	6,753.67	7,017.05	6,753.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,200.00	6,853.67	7,117.05	6,853.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,300.00	6,953.67	7,217.05	6,953.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,400.00	7,053.67	7,317.05	7,053.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,500.00	7,153.67	7,417.05	7,153.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,600.00	7,253.67	7,517.05	7,253.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,700.00	7,353.67	7,617.05	7,353.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,800.00	7,453.67	7,717.05	7,453.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
7,900.00	7,553.67	7,817.05	7,553.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,000.00	7,653.67	7,917.05	7,653.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,100.00	7,753.67	8,017.05	7,753.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,200.00	7,853.67	8,117.05	7,853.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,300.00	7,953.67	8,217.05	7,953.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,400.00	8,053.67	8,317.05	8,053.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,500.00	8,153.67	8,417.05	8,153.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,600.00	8,253.67	8,517.05	8,253.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,700.00	8,353.67	8,617.05	8,353.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,800.00	8,453.67	8,717.05	8,453.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
8,900.00	8,553.67	8,817.05	8,553.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,000.00	8,653.67	8,917.05	8,653.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,100.00	8,753.67	9,017.05	8,753.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,200.00	8,853.67	9,117.05	8,853.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,300.00	8,953.67	9,217.05	8,953.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,400.00	9,053.67	9,317.05	9,053.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,500.00	9,153.67	9,417.05	9,153.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,600.00	9,253.67	9,517.05	9,253.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,700.00	9,353.67	9,617.05	9,353.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,800.00	9,453.67	9,717.05	9,453.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
9,900.00	9,553.67	9,817.05	9,553.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,000.00	9,653.67	9,917.05	9,653.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,100.00	9,753.67	10,017.05	9,753.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,200.00	9,853.67	10,117.05	9,853.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,300.00	9,953.67	10,217.05	9,953.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,400.00	10,053.67	10,317.05	10,053.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,500.00	10,153.67	10,417.05	10,153.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,600.00	10,253.67	10,517.05	10,253.67	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		
10,646.33	10,300.00	10,563.38	10,300.00	0.00	178.98	-453.42	-1,214.86	1,319.85	1,319.85	1,319.85	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41B - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: O-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Hightide Toolface (°)	Offset Wellbore Centres +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00		130.88	-59.01	68.16	90.15	90.15	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00		130.88	-59.01	68.16	90.15	90.15	0.00	N/A		
200.00	200.00	200.00	200.00	0.00		130.88	-59.01	68.16	90.15	90.15	0.00	N/A		
300.00	300.00	300.00	300.00	0.00		130.88	-59.01	68.16	90.15	90.15	0.00	N/A		
400.00	400.00	400.00	400.00	0.00		130.88	-59.01	68.16	90.15	90.15	0.00	N/A		
500.00	500.00	500.00	500.00	0.00		130.88	-59.01	68.16	90.15	90.15	0.00	N/A CC, ES		
600.00	599.98	600.89	600.87	0.00		-173.14	-59.95	66.66	91.39	91.39	0.00	N/A		
700.00	699.84	701.55	701.38	0.00		-170.43	-62.78	62.16	95.23	95.23	0.00	N/A		
800.00	799.45	801.75	801.20	0.00		-166.40	-67.46	54.72	102.06	102.06	0.00	N/A		
900.00	898.70	901.29	899.98	0.00		-161.63	-73.95	44.41	112.30	112.30	0.00	N/A		
1,000.00	997.47	999.94	997.41	0.00		-156.68	-82.17	31.33	126.34	126.34	0.00	N/A		
1,100.00	1,095.62	1,097.51	1,093.19	0.00		-151.96	-92.06	15.61	144.40	144.40	0.00	N/A		
1,200.00	1,193.06	1,194.47	1,187.91	0.00		-148.03	-103.09	-1.92	166.40	166.40	0.00	N/A		
1,300.00	1,289.64	1,290.96	1,282.16	0.00		-145.49	-114.11	-19.43	191.71	191.71	0.00	N/A		
1,400.00	1,385.27	1,386.80	1,375.77	0.00		-143.97	-125.05	-36.82	219.95	219.95	0.00	N/A		
1,500.00	1,479.82	1,481.86	1,468.62	0.00		-143.17	-135.90	-54.07	250.94	250.94	0.00	N/A		
1,600.00	1,573.17	1,576.03	1,560.59	0.00		-142.87	-146.65	-71.16	284.57	284.57	0.00	N/A		
1,700.00	1,665.21	1,669.18	1,651.59	0.00		-142.90	-157.28	-88.07	320.83	320.83	0.00	N/A		
1,800.00	1,755.84	1,761.22	1,741.48	0.00		-143.15	-167.79	-104.77	359.70	359.70	0.00	N/A		
1,900.00	1,844.94	1,852.03	1,830.18	0.00		-143.54	-178.15	-121.25	401.19	401.19	0.00	N/A		
2,000.75	1,933.04	1,942.15	1,918.21	0.00		-144.00	-188.44	-137.61	445.66	445.66	0.00	N/A		
2,100.00	2,018.98	2,030.23	2,004.24	0.00		-144.98	-198.50	-153.59	490.85	490.85	0.00	N/A		
2,200.00	2,105.57	2,118.97	2,090.91	0.00		-145.81	-208.63	-169.69	536.48	536.48	0.00	N/A		
2,300.00	2,192.16	2,207.71	2,177.59	0.00		-146.50	-218.76	-185.80	582.18	582.18	0.00	N/A		
2,400.00	2,278.75	2,298.45	2,264.27	0.00		-147.09	-228.89	-201.90	627.94	627.94	0.00	N/A		
2,500.00	2,365.34	2,385.20	2,350.95	0.00		-147.61	-239.02	-218.01	673.74	673.74	0.00	N/A		
2,600.00	2,451.93	2,473.94	2,437.63	0.00		-148.05	-249.15	-234.11	719.58	719.58	0.00	N/A		
2,700.00	2,538.52	2,562.68	2,524.31	0.00		-148.45	-259.28	-250.21	765.45	765.45	0.00	N/A		
2,800.00	2,625.11	2,651.42	2,610.98	0.00		-148.80	-269.41	-266.32	811.35	811.35	0.00	N/A		
2,900.00	2,711.70	2,740.16	2,697.66	0.00		-149.11	-279.54	-282.42	857.27	857.27	0.00	N/A		
3,000.00	2,798.29	2,828.90	2,784.34	0.00		-149.39	-288.67	-298.53	903.21	903.21	0.00	N/A		
3,100.00	2,884.88	2,917.65	2,871.02	0.00		-149.64	-299.80	-314.63	949.16	949.16	0.00	N/A		
3,200.00	2,971.47	3,006.39	2,957.70	0.00		-149.88	-309.93	-330.74	995.13	995.13	0.00	N/A		
3,300.00	3,058.06	3,095.13	3,044.37	0.00		-150.08	-320.06	-346.84	1,041.11	1,041.11	0.00	N/A		
3,400.00	3,144.65	3,183.87	3,131.05	0.00		-150.28	-330.19	-362.94	1,087.09	1,087.09	0.00	N/A		
3,500.00	3,231.24	3,272.61	3,217.73	0.00		-150.45	-340.32	-379.05	1,133.09	1,133.09	0.00	N/A		
3,600.00	3,317.83	3,361.35	3,304.41	0.00		-150.62	-350.45	-395.15	1,179.09	1,179.09	0.00	N/A		
3,700.00	3,404.42	3,450.10	3,391.09	0.00		-150.77	-360.58	-411.26	1,225.11	1,225.11	0.00	N/A		
3,741.83	3,440.64	3,487.22	3,427.35	0.00		-150.83	-364.82	-417.99	1,244.36	1,244.36	0.00	N/A		
3,800.00	3,491.44	3,539.20	3,478.12	0.00		-151.31	-370.75	-427.43	1,270.43	1,270.43	0.00	N/A		
3,900.00	3,580.71	3,630.15	3,566.95	0.00		-151.96	-381.13	-443.93	1,311.98	1,311.98	0.00	N/A		
4,000.00	3,672.22	3,722.88	3,657.53	0.00		-152.41	-391.72	-460.76	1,349.29	1,349.29	0.00	N/A		
4,100.00	3,765.71	3,817.15	3,749.61	0.00		-152.67	-402.48	-477.87	1,382.27	1,382.27	0.00	N/A		
4,200.00	3,860.93	3,912.69	3,842.93	0.00		-152.78	-413.39	-495.21	1,410.84	1,410.84	0.00	N/A		
4,300.00	3,957.61	4,009.25	3,937.24	0.00		-152.72	-424.41	-512.73	1,434.98	1,434.98	0.00	N/A		
4,400.00	4,055.50	4,110.87	4,036.81	0.00		-152.56	-435.20	-529.89	1,454.55	1,454.55	0.00	N/A		
4,500.00	4,154.32	4,215.59	4,140.36	0.00		-152.44	-443.45	-543.00	1,469.23	1,469.23	0.00	N/A		
4,600.00	4,253.80	4,321.58	4,245.88	0.00		-152.39	-448.71	-551.36	1,478.89	1,478.89	0.00	N/A		
4,700.00	4,353.67	4,428.27	4,352.48	0.00		-152.39	-450.85	-554.76	1,483.48	1,483.48	0.00	N/A		
4,742.33	4,396.00	4,471.79	4,396.00	0.00		-152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A		
4,800.00	4,453.67	4,529.46	4,453.67	0.00		-152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A		
4,900.00	4,553.67	4,629.46	4,553.67	0.00		-152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41B - OH - Plan #1													Offset Site Error:	0.00 ft	
Survey Program: 0-Gyro		Distance											Offset Well Error:		0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset (ft)	Hightside Toolface (°)	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5,000.00	4,653.67	4,729.46	4,653.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,100.00	4,753.67	4,829.46	4,753.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,200.00	4,853.67	4,929.46	4,853.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,300.00	4,953.67	5,029.46	4,953.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,400.00	5,053.67	5,129.46	5,053.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,500.00	5,153.67	5,229.46	5,153.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,600.00	5,253.67	5,329.46	5,253.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,700.00	5,353.67	5,429.46	5,353.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,800.00	5,453.67	5,529.46	5,453.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
5,900.00	5,553.67	5,629.46	5,553.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,000.00	5,653.67	5,729.46	5,653.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,100.00	5,753.67	5,829.46	5,753.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,200.00	5,853.67	5,929.46	5,853.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,300.00	5,953.67	6,029.46	5,953.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,400.00	6,053.67	6,129.46	6,053.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,500.00	6,153.67	6,229.46	6,153.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,600.00	6,253.67	6,329.46	6,253.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,700.00	6,353.67	6,429.46	6,353.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,800.00	6,453.67	6,529.46	6,453.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
6,900.00	6,553.67	6,629.46	6,553.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,000.00	6,653.67	6,729.46	6,653.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,100.00	6,753.67	6,829.46	6,753.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,200.00	6,853.67	6,929.46	6,853.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,300.00	6,953.67	7,029.46	6,953.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,400.00	7,053.67	7,129.46	7,053.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,500.00	7,153.67	7,229.46	7,153.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,600.00	7,253.67	7,329.46	7,253.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,700.00	7,353.67	7,429.46	7,353.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,800.00	7,453.67	7,529.46	7,453.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
7,900.00	7,553.67	7,629.46	7,553.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,000.00	7,653.67	7,729.46	7,653.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,100.00	7,753.67	7,829.46	7,753.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,200.00	7,853.67	7,929.46	7,853.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,300.00	7,953.67	8,029.46	7,953.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,400.00	8,053.67	8,129.46	8,053.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,500.00	8,153.67	8,229.46	8,153.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,600.00	8,253.67	8,329.46	8,253.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,700.00	8,353.67	8,429.46	8,353.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,800.00	8,453.67	8,529.46	8,453.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
8,900.00	8,553.67	8,629.46	8,553.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,000.00	8,653.67	8,729.46	8,653.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,100.00	8,753.67	8,829.46	8,753.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,200.00	8,853.67	8,929.46	8,853.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,300.00	8,953.67	9,029.46	8,953.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,400.00	9,053.67	9,129.46	9,053.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,500.00	9,153.67	9,229.46	9,153.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,600.00	9,253.67	9,329.46	9,253.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,700.00	9,353.67	9,429.46	9,353.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,800.00	9,453.67	9,529.46	9,453.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
9,900.00	9,553.67	9,629.46	9,553.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
10,000.00	9,653.67	9,729.46	9,653.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				
10,100.00	9,753.67	9,829.46	9,753.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41B - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: D-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10,200.00	9,853.67	9,929.46	9,853.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A			
10,300.00	9,953.67	10,029.46	9,953.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A			
10,400.00	10,053.67	10,129.46	10,053.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A			
10,500.00	10,153.67	10,229.46	10,153.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A			
10,600.00	10,253.67	10,329.46	10,253.67	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A			
10,646.33	10,300.00	10,375.79	10,300.00	0.00	152.57	-450.89	-554.83	1,483.91	1,483.91	0.00	N/A			

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41C - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: D-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Reference Offset		Semi Major Axis			Distance					Warning		
		Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Hightide Toolface (°)	Offset Wellbore Centres +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00		130.75	-78.31	90.88	119.97	119.97	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00		130.75	-78.31	90.88	119.97	119.97	0.00	N/A		
200.00	200.00	200.00	200.00	0.00		130.75	-78.31	90.88	119.97	119.97	0.00	N/A		
300.00	300.00	300.00	300.00	0.00		130.75	-78.31	90.88	119.97	119.97	0.00	N/A		
400.00	400.00	400.00	400.00	0.00		130.75	-78.31	90.88	119.97	119.97	0.00	N/A		
500.00	500.00	500.00	500.00	0.00		130.75	-78.31	90.88	119.97	119.97	0.00	N/A CC, ES		
600.00	599.98	597.14	597.12	0.00		-173.73	-79.96	90.94	122.86	122.86	0.00	N/A		
700.00	699.84	693.72	693.58	0.00		-172.39	-84.85	91.13	131.58	131.58	0.00	N/A		
800.00	799.45	789.23	788.74	0.00		-170.52	-92.89	91.43	146.19	146.19	0.00	N/A		
900.00	898.70	887.08	886.08	0.00		-168.72	-102.86	91.81	165.61	165.61	0.00	N/A		
1,000.00	997.47	984.37	982.86	0.00		-167.49	-112.78	92.18	188.48	188.48	0.00	N/A		
1,100.00	1,095.62	1,080.84	1,078.83	0.00		-166.70	-122.61	92.55	214.70	214.70	0.00	N/A		
1,200.00	1,193.06	1,176.38	1,173.87	0.00		-166.24	-132.35	92.92	244.19	244.19	0.00	N/A		
1,300.00	1,289.64	1,270.87	1,267.86	0.00		-166.01	-141.98	93.28	276.91	276.91	0.00	N/A		
1,400.00	1,385.27	1,364.19	1,360.70	0.00		-165.94	-151.50	93.64	312.81	312.81	0.00	N/A		
1,500.00	1,479.82	1,456.24	1,452.27	0.00		-165.97	-160.88	94.00	351.86	351.86	0.00	N/A		
1,600.00	1,573.17	1,546.90	1,542.46	0.00		-166.07	-170.12	94.34	394.00	394.00	0.00	N/A		
1,700.00	1,665.21	1,636.06	1,631.15	0.00		-166.21	-179.21	94.69	439.21	439.21	0.00	N/A		
1,800.00	1,755.84	1,723.61	1,718.25	0.00		-166.37	-188.14	95.02	487.42	487.42	0.00	N/A		
1,900.00	1,844.94	1,809.45	1,803.63	0.00		-166.53	-196.89	95.35	538.61	538.61	0.00	N/A		
2,000.75	1,933.04	1,894.09	1,887.83	0.00		-166.69	-205.51	95.68	593.12	593.12	0.00	N/A		
2,100.00	2,018.98	1,976.52	1,969.84	0.00		-167.11	-213.92	96.00	648.26	648.26	0.00	N/A		
2,200.00	2,105.57	2,059.58	2,052.46	0.00		-167.46	-222.38	96.32	703.84	703.84	0.00	N/A		
2,300.00	2,192.16	2,142.64	2,135.08	0.00		-167.76	-230.85	96.64	759.44	759.44	0.00	N/A		
2,400.00	2,278.75	2,225.69	2,217.71	0.00		-168.03	-239.32	96.95	815.05	815.05	0.00	N/A		
2,500.00	2,365.34	2,308.75	2,300.33	0.00		-168.25	-247.79	97.27	870.67	870.67	0.00	N/A		
2,600.00	2,451.93	2,391.81	2,382.96	0.00		-168.46	-256.25	97.59	926.30	926.30	0.00	N/A		
2,700.00	2,538.52	2,474.86	2,465.58	0.00		-168.63	-264.72	97.91	981.94	981.94	0.00	N/A		
2,800.00	2,625.11	2,557.92	2,548.20	0.00		-168.79	-273.19	98.23	1,037.58	1,037.58	0.00	N/A		
2,900.00	2,711.70	2,640.98	2,630.83	0.00		-168.94	-281.65	98.55	1,093.23	1,093.23	0.00	N/A		
3,000.00	2,798.29	2,724.04	2,713.45	0.00		-169.01	-290.12	98.87	1,148.88	1,148.88	0.00	N/A		
3,100.00	2,884.88	2,807.09	2,796.08	0.00		-169.18	-298.59	99.19	1,204.53	1,204.53	0.00	N/A		
3,200.00	2,971.47	2,890.15	2,878.70	0.00		-169.29	-307.05	99.51	1,260.19	1,260.19	0.00	N/A		
3,300.00	3,058.06	2,973.21	2,961.32	0.00		-169.39	-315.52	99.83	1,315.85	1,315.85	0.00	N/A		
3,400.00	3,144.65	3,056.27	3,043.95	0.00		-169.48	-323.99	100.15	1,371.52	1,371.52	0.00	N/A		
3,500.00	3,231.24	3,139.32	3,126.57	0.00		-169.56	-332.45	100.47	1,427.18	1,427.18	0.00	N/A		
3,600.00	3,317.83	3,222.38	3,209.20	0.00		-169.64	-340.92	100.79	1,482.85	1,482.85	0.00	N/A		
3,700.00	3,404.42	3,305.44	3,291.82	0.00		-169.71	-349.39	101.11	1,538.52	1,538.52	0.00	N/A		
3,741.83	3,440.64	3,340.18	3,326.38	0.00		-169.74	-352.93	101.24	1,561.81	1,561.81	0.00	N/A		
3,800.00	3,491.44	3,388.98	3,374.92	0.00		-169.97	-357.90	101.43	1,593.46	1,593.46	0.00	N/A		
3,900.00	3,580.71	3,475.01	3,460.51	0.00		-170.29	-366.67	101.76	1,644.41	1,644.41	0.00	N/A		
4,000.00	3,672.22	3,563.56	3,548.59	0.00		-170.54	-375.70	102.10	1,690.85	1,690.85	0.00	N/A		
4,100.00	3,765.71	3,654.38	3,638.94	0.00		-170.72	-384.96	102.45	1,732.66	1,732.66	0.00	N/A		
4,200.00	3,860.93	3,747.22	3,731.29	0.00		-170.84	-394.42	102.81	1,769.73	1,769.73	0.00	N/A		
4,300.00	3,957.61	3,841.83	3,825.41	0.00		-170.90	-404.07	103.17	1,801.95	1,801.95	0.00	N/A		
4,400.00	4,055.50	3,937.95	3,921.03	0.00		-170.92	-413.86	103.54	1,829.24	1,829.24	0.00	N/A		
4,500.00	4,154.32	4,035.31	4,017.89	0.00		-170.88	-423.79	103.91	1,851.53	1,851.53	0.00	N/A		
4,600.00	4,253.80	4,133.66	4,115.72	0.00		-170.79	-433.82	104.29	1,868.77	1,868.77	0.00	N/A		
4,700.00	4,353.67	4,323.78	4,305.19	0.00		-170.57	-448.97	104.86	1,880.04	1,880.04	0.00	N/A		
4,742.33	4,396.00	4,414.61	4,396.00	0.00		134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A		
4,800.00	4,453.67	4,472.27	4,453.67	0.00		134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A		
4,900.00	4,553.67	4,572.27	4,553.67	0.00		134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

NA 27-41 Pad - North Alger 27-41C - OH - Plan #1													Offset Site Error:	0.00 ft.
Survey Program:		0-Gyro											Offset Well Error:	0.00 ft.
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance					Warning		
		Reference	Offset	Reference	Offset	Hightide Tooface (")	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,653.67	4,672.27	4,653.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,100.00	4,753.67	4,772.27	4,753.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,200.00	4,853.67	4,872.27	4,853.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,300.00	4,953.67	4,972.27	4,953.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,400.00	5,053.67	5,072.27	5,053.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,500.00	5,153.67	5,172.27	5,153.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,600.00	5,253.67	5,272.27	5,253.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,700.00	5,353.67	5,372.27	5,353.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,800.00	5,453.67	5,472.27	5,453.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
5,900.00	5,553.67	5,572.27	5,553.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,000.00	5,653.67	5,672.27	5,653.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,100.00	5,753.67	5,772.27	5,753.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,200.00	5,853.67	5,872.27	5,853.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,300.00	5,953.67	5,972.27	5,953.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,400.00	6,053.67	6,072.27	6,053.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,500.00	6,153.67	6,172.27	6,153.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,600.00	6,253.67	6,272.27	6,253.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,700.00	6,353.67	6,372.27	6,353.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,800.00	6,453.67	6,472.27	6,453.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
6,900.00	6,553.67	6,572.27	6,553.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,000.00	6,653.67	6,672.27	6,653.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,100.00	6,753.67	6,772.27	6,753.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,200.00	6,853.67	6,872.27	6,853.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,300.00	6,953.67	6,972.27	6,953.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,400.00	7,053.67	7,072.27	7,053.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,500.00	7,153.67	7,172.27	7,153.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,600.00	7,253.67	7,272.27	7,253.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,700.00	7,353.67	7,372.27	7,353.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,800.00	7,453.67	7,472.27	7,453.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
7,900.00	7,553.67	7,572.27	7,553.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,000.00	7,653.67	7,672.27	7,653.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,100.00	7,753.67	7,772.27	7,753.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,200.00	7,853.67	7,872.27	7,853.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,300.00	7,953.67	7,972.27	7,953.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,400.00	8,053.67	8,072.27	8,053.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,500.00	8,153.67	8,172.27	8,153.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,600.00	8,253.67	8,272.27	8,253.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,700.00	8,353.67	8,372.27	8,353.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,800.00	8,453.67	8,472.27	8,453.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
8,900.00	8,553.67	8,572.27	8,553.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,000.00	8,653.67	8,672.27	8,653.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,100.00	8,753.67	8,772.27	8,753.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,200.00	8,853.67	8,872.27	8,853.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,300.00	8,953.67	8,972.27	8,953.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,400.00	9,053.67	9,072.27	9,053.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,500.00	9,153.67	9,172.27	9,153.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,600.00	9,253.67	9,272.27	9,253.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,700.00	9,353.67	9,372.27	9,353.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,800.00	9,453.67	9,472.27	9,453.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
9,900.00	9,553.67	9,572.27	9,553.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
10,000.00	9,653.67	9,672.27	9,653.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		
10,100.00	9,753.67	9,772.27	9,753.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41C - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: D-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance					Warning		
		Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	9,853.67	9,872.27	9,853.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A			
10,300.00	9,953.67	9,972.27	9,953.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A			
10,400.00	10,053.67	10,072.27	10,053.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A			
10,500.00	10,153.67	10,172.27	10,153.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A			
10,600.00	10,253.67	10,272.27	10,253.67	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A			
10,646.33	10,300.00	10,318.61	10,300.00	0.00	134.42	-450.17	104.91	1,880.75	1,880.75	0.00	N/A			

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41D - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: O-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Distance					Warning		
				Reference	Offset	Hightide Toolface (")	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	130.80	-88.15	102.10	134.89	134.89	134.89	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00	130.80	-88.15	102.10	134.89	134.89	134.89	0.00	N/A		
200.00	200.00	200.00	200.00	0.00	130.80	-88.15	102.10	134.89	134.89	134.89	0.00	N/A		
300.00	300.00	300.00	300.00	0.00	130.80	-88.15	102.10	134.89	134.89	134.89	0.00	N/A		
400.00	400.00	400.00	400.00	0.00	130.80	-88.15	102.10	134.89	134.89	134.89	0.00	N/A		
500.00	500.00	500.00	500.00	0.00	130.80	-88.15	102.10	134.89	134.89	134.89	0.00	N/A CC, ES		
600.00	599.98	595.49	595.47	0.00	-174.37	-88.91	103.50	138.25	138.25	138.25	0.00	N/A		
700.00	699.84	690.32	690.18	0.00	-174.92	-91.18	107.64	148.34	148.34	148.34	0.00	N/A		
800.00	799.45	783.86	783.39	0.00	-175.68	-94.89	114.43	165.08	165.08	165.08	0.00	N/A		
900.00	898.70	875.50	874.42	0.00	-176.52	-99.94	123.66	188.39	188.39	188.39	0.00	N/A		
1,000.00	997.47	964.69	962.65	0.00	-177.33	-106.20	135.09	218.10	218.10	218.10	0.00	N/A		
1,100.00	1,095.62	1,050.93	1,047.54	0.00	-178.06	-113.50	148.43	254.00	254.00	254.00	0.00	N/A		
1,200.00	1,193.06	1,133.82	1,128.66	0.00	-178.69	-121.67	163.36	295.85	295.85	295.85	0.00	N/A		
1,300.00	1,289.64	1,221.90	1,214.57	0.00	-179.25	-131.01	180.42	342.27	342.27	342.27	0.00	N/A		
1,400.00	1,385.27	1,308.74	1,299.26	0.00	-179.89	-140.22	197.25	391.78	391.78	391.78	0.00	N/A		
1,500.00	1,479.82	1,393.81	1,382.23	0.00	179.97	-149.24	213.73	444.30	444.30	444.30	0.00	N/A		
1,600.00	1,573.17	1,476.98	1,463.35	0.00	179.69	-158.06	229.85	499.77	499.77	499.77	0.00	N/A		
1,700.00	1,665.21	1,558.18	1,542.54	0.00	179.46	-168.67	245.59	558.11	558.11	558.11	0.00	N/A		
1,800.00	1,755.84	1,637.29	1,619.69	0.00	179.28	-175.06	260.92	619.26	619.26	619.26	0.00	N/A		
1,900.00	1,844.94	1,714.21	1,694.72	0.00	179.12	-183.22	275.82	683.13	683.13	683.13	0.00	N/A		
2,000.75	1,933.04	1,789.42	1,768.06	0.00	178.98	-191.19	290.40	750.16	750.16	750.16	0.00	N/A		
2,100.00	2,018.98	1,862.33	1,839.18	0.00	178.90	-198.92	304.53	817.49	817.49	817.49	0.00	N/A		
2,200.00	2,105.57	1,935.80	1,910.83	0.00	178.83	-206.72	318.76	885.33	885.33	885.33	0.00	N/A		
2,300.00	2,192.16	2,009.27	1,982.48	0.00	178.76	-214.51	333.00	953.17	953.17	953.17	0.00	N/A		
2,400.00	2,278.75	2,082.73	2,054.13	0.00	178.71	-222.30	347.23	1,021.01	1,021.01	1,021.01	0.00	N/A		
2,500.00	2,365.34	2,156.20	2,125.79	0.00	178.66	-230.09	361.47	1,088.85	1,088.85	1,088.85	0.00	N/A		
2,600.00	2,451.93	2,229.67	2,197.44	0.00	178.62	-237.88	375.71	1,156.69	1,156.69	1,156.69	0.00	N/A		
2,700.00	2,538.52	2,303.13	2,269.09	0.00	178.59	-245.67	389.94	1,224.53	1,224.53	1,224.53	0.00	N/A		
2,800.00	2,625.11	2,376.60	2,340.74	0.00	178.55	-253.46	404.18	1,292.37	1,292.37	1,292.37	0.00	N/A		
2,900.00	2,711.70	2,450.07	2,412.39	0.00	178.52	-261.25	418.42	1,360.21	1,360.21	1,360.21	0.00	N/A		
3,000.00	2,798.29	2,523.53	2,484.05	0.00	178.50	-269.04	432.65	1,428.05	1,428.05	1,428.05	0.00	N/A		
3,100.00	2,884.88	2,597.00	2,555.70	0.00	178.47	-276.83	446.89	1,495.89	1,495.89	1,495.89	0.00	N/A		
3,200.00	2,971.47	2,670.47	2,627.35	0.00	178.45	-284.63	461.12	1,563.73	1,563.73	1,563.73	0.00	N/A		
3,300.00	3,058.06	2,743.93	2,699.00	0.00	178.43	-292.42	475.36	1,631.57	1,631.57	1,631.57	0.00	N/A		
3,400.00	3,144.65	2,817.40	2,770.65	0.00	178.41	-300.21	489.60	1,699.42	1,699.42	1,699.42	0.00	N/A		
3,500.00	3,231.24	2,890.87	2,842.30	0.00	178.39	-308.00	503.83	1,767.26	1,767.26	1,767.26	0.00	N/A		
3,600.00	3,317.83	2,964.33	2,913.96	0.00	178.38	-315.79	518.07	1,835.10	1,835.10	1,835.10	0.00	N/A		
3,700.00	3,404.42	3,037.80	2,985.61	0.00	178.36	-323.58	532.31	1,902.94	1,902.94	1,902.94	0.00	N/A		
3,741.83	3,440.64	3,058.53	3,015.58	0.00	178.36	-326.84	538.26	1,931.32	1,931.32	1,931.32	0.00	N/A		
3,800.00	3,491.44	3,111.86	3,057.84	0.00	178.39	-331.44	546.66	1,970.13	1,970.13	1,970.13	0.00	N/A		
3,900.00	3,580.71	3,189.04	3,133.11	0.00	178.44	-339.62	561.61	2,033.69	2,033.69	2,033.69	0.00	N/A		
4,000.00	3,672.22	3,269.44	3,211.52	0.00	178.48	-348.15	577.19	2,093.14	2,093.14	2,093.14	0.00	N/A		
4,100.00	3,765.71	3,352.83	3,292.86	0.00	178.50	-356.99	593.35	2,148.30	2,148.30	2,148.30	0.00	N/A		
4,200.00	3,860.93	3,439.00	3,376.89	0.00	178.52	-366.13	610.05	2,199.01	2,199.01	2,199.01	0.00	N/A		
4,300.00	3,957.61	3,527.70	3,463.40	0.00	178.53	-375.53	627.24	2,245.16	2,245.16	2,245.16	0.00	N/A		
4,400.00	4,055.50	3,618.69	3,552.14	0.00	178.53	-385.18	644.87	2,286.59	2,286.59	2,286.59	0.00	N/A		
4,500.00	4,154.32	3,711.72	3,642.88	0.00	178.52	-395.05	662.90	2,323.21	2,323.21	2,323.21	0.00	N/A		
4,600.00	4,253.80	3,806.53	3,735.35	0.00	178.51	-405.10	681.27	2,354.92	2,354.92	2,354.92	0.00	N/A		
4,700.00	4,353.67	3,902.88	3,829.31	0.00	178.49	-415.32	699.94	2,381.62	2,381.62	2,381.62	0.00	N/A		
4,742.33	4,396.00	3,944.06	3,869.48	0.00	178.45	-419.69	707.92	2,391.39	2,391.39	2,391.39	0.00	N/A		
4,800.00	4,453.67	4,533.75	4,453.67	0.00	178.44	-450.89	764.93	2,397.48	2,397.48	2,397.48	0.00	N/A		
4,900.00	4,553.67	4,633.75	4,553.67	0.00	178.32	-450.89	764.93	2,397.48	2,397.48	2,397.48	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41D - OH - Plan #1													Offset Site Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Distance					Offset Wellbore	Offset Well Error:	0.00 ft
				Reference	Offset	Highside Toolface (")	Offset Weibors Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)			
5,000.00	4,653.67	4,733.75	4,653.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,100.00	4,753.67	4,833.75	4,753.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,200.00	4,853.67	4,933.75	4,853.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,300.00	4,953.67	5,033.75	4,953.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,400.00	5,053.67	5,133.75	5,053.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,500.00	5,153.67	5,233.75	5,153.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,600.00	5,253.67	5,333.75	5,253.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,700.00	5,353.67	5,433.75	5,353.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,800.00	5,453.67	5,533.75	5,453.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
5,900.00	5,553.67	5,633.75	5,553.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,000.00	5,653.67	5,733.75	5,653.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,100.00	5,753.67	5,833.75	5,753.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,200.00	5,853.67	5,933.75	5,853.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,300.00	5,953.67	6,033.75	5,953.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,400.00	6,053.67	6,133.75	6,053.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,500.00	6,153.67	6,233.75	6,153.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,600.00	6,253.67	6,333.75	6,253.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,700.00	6,353.67	6,433.75	6,353.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,800.00	6,453.67	6,533.75	6,453.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
6,900.00	6,553.67	6,633.75	6,553.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,000.00	6,653.67	6,733.75	6,653.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,100.00	6,753.67	6,833.75	6,753.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,200.00	6,853.67	6,933.75	6,853.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,300.00	6,953.67	7,033.75	6,953.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,400.00	7,053.67	7,133.75	7,053.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,500.00	7,153.67	7,233.75	7,153.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,600.00	7,253.67	7,333.75	7,253.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,700.00	7,353.67	7,433.75	7,353.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,800.00	7,453.67	7,533.75	7,453.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
7,900.00	7,553.67	7,633.75	7,553.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,000.00	7,653.67	7,733.75	7,653.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,100.00	7,753.67	7,833.75	7,753.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,200.00	7,853.67	7,933.75	7,853.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,300.00	7,953.67	8,033.75	7,953.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,400.00	8,053.67	8,133.75	8,053.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,500.00	8,153.67	8,233.75	8,153.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,600.00	8,253.67	8,333.75	8,253.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,700.00	8,353.67	8,433.75	8,353.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,800.00	8,453.67	8,533.75	8,453.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
8,900.00	8,553.67	8,633.75	8,553.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,000.00	8,653.67	8,733.75	8,653.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,100.00	8,753.67	8,833.75	8,753.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,200.00	8,853.67	8,933.75	8,853.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,300.00	8,953.67	9,033.75	8,953.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,400.00	9,053.67	9,133.75	9,053.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,500.00	9,153.67	9,233.75	9,153.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,600.00	9,253.67	9,333.75	9,253.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,700.00	9,353.67	9,433.75	9,353.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,800.00	9,453.67	9,533.75	9,453.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
9,900.00	9,553.67	9,633.75	9,553.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
10,000.00	9,653.67	9,733.75	9,653.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			
10,100.00	9,753.67	9,833.75	9,753.67	0.00	123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41D - OH - Plan #1													Offset Site Error:	0.00 ft		
Survey Program:		Offset											Offset Well Error:		0.00 ft	
Reference		Offset		Semi Major Axis			Offset Wellbore Centres			Between Centres		Between Ellipses		Minimum Separation	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centres +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
10,200.00	9,853.67	9,933.75	9,853.67	0.00		123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A				
10,300.00	9,953.67	10,033.75	9,953.67	0.00		123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A				
10,400.00	10,053.67	10,133.75	10,053.67	0.00		123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A				
10,500.00	10,153.67	10,233.75	10,153.67	0.00		123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A				
10,600.00	10,253.67	10,333.75	10,253.67	0.00		123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A				
10,646.33	10,300.00	10,380.08	10,300.00	0.00		123.32	-450.89	764.93	2,397.48	2,397.48	0.00	N/A				

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41E - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: D-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Distance					Warning		
				Reference	Offset	Hightside Toolface (°)	Offset Wellbore Centres +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00		130.93	-68.84	79.38	105.07	105.07	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00		130.93	-68.84	79.38	105.07	105.07	0.00	N/A		
200.00	200.00	200.00	200.00	0.00		130.93	-68.84	79.38	105.07	105.07	0.00	N/A		
300.00	300.00	300.00	300.00	0.00		130.93	-68.84	79.38	105.07	105.07	0.00	N/A		
400.00	400.00	400.00	400.00	0.00		130.93	-68.84	79.38	105.07	105.07	0.00	N/A		
500.00	500.00	500.00	500.00	0.00		130.93	-68.84	79.38	105.07	105.07	0.00	N/A CC, ES		
600.00	599.98	598.29	598.27	0.00		-174.93	-68.20	80.94	107.59	107.59	0.00	N/A		
700.00	699.84	696.04	695.89	0.00		-177.37	-66.28	85.58	115.29	115.29	0.00	N/A		
800.00	799.45	792.73	792.22	0.00		179.24	-63.14	93.19	128.47	128.47	0.00	N/A		
900.00	898.70	887.85	886.66	0.00		175.55	-58.84	103.61	147.43	147.43	0.00	N/A		
1,000.00	997.47	980.93	978.68	0.00		172.01	-53.48	116.61	172.31	172.31	0.00	N/A		
1,100.00	1,095.62	1,071.57	1,067.78	0.00		168.86	-47.17	131.91	203.08	203.08	0.00	N/A		
1,200.00	1,193.06	1,162.39	1,156.61	0.00		166.16	-39.95	149.41	239.22	239.22	0.00	N/A		
1,300.00	1,289.64	1,253.85	1,246.01	0.00		164.19	-32.58	167.27	278.97	278.97	0.00	N/A		
1,400.00	1,385.27	1,344.00	1,334.12	0.00		162.81	-25.33	184.86	321.93	321.93	0.00	N/A		
1,500.00	1,479.82	1,432.71	1,420.83	0.00		161.83	-18.18	202.17	367.94	367.94	0.00	N/A		
1,600.00	1,573.17	1,519.88	1,506.04	0.00		161.13	-11.16	219.19	416.89	416.89	0.00	N/A		
1,700.00	1,665.21	1,605.40	1,589.64	0.00		160.62	-4.28	235.88	468.69	468.69	0.00	N/A		
1,800.00	1,755.84	1,689.18	1,671.52	0.00		160.24	2.47	252.23	523.29	523.29	0.00	N/A		
1,900.00	1,844.94	1,771.10	1,751.60	0.00		159.96	9.06	268.22	580.60	580.60	0.00	N/A		
2,000.75	1,933.04	1,851.66	1,830.35	0.00		159.72	15.55	283.94	641.05	641.05	0.00	N/A		
2,100.00	2,018.98	1,930.02	1,906.93	0.00		160.02	21.86	299.24	701.90	701.90	0.00	N/A		
2,200.00	2,105.57	2,008.96	1,984.10	0.00		160.27	28.22	314.64	763.23	763.23	0.00	N/A		
2,300.00	2,192.16	2,087.91	2,061.27	0.00		160.49	34.57	330.05	824.57	824.57	0.00	N/A		
2,400.00	2,278.75	2,166.86	2,138.43	0.00		160.67	40.93	345.46	885.91	885.91	0.00	N/A		
2,500.00	2,365.34	2,245.80	2,215.60	0.00		160.83	47.29	360.87	947.25	947.25	0.00	N/A		
2,600.00	2,451.93	2,324.75	2,292.76	0.00		160.98	53.64	376.28	1,008.61	1,008.61	0.00	N/A		
2,700.00	2,538.52	2,403.69	2,369.93	0.00		161.10	60.00	391.69	1,069.96	1,069.96	0.00	N/A		
2,800.00	2,625.11	2,482.64	2,447.10	0.00		161.21	66.36	407.09	1,131.32	1,131.32	0.00	N/A		
2,900.00	2,711.70	2,561.58	2,524.26	0.00		161.31	72.71	422.50	1,192.68	1,192.68	0.00	N/A		
3,000.00	2,798.29	2,640.53	2,601.43	0.00		161.40	79.07	437.91	1,254.04	1,254.04	0.00	N/A		
3,100.00	2,884.88	2,719.48	2,678.60	0.00		161.48	85.43	453.32	1,315.40	1,315.40	0.00	N/A		
3,200.00	2,971.47	2,798.42	2,755.76	0.00		161.56	91.78	468.73	1,376.77	1,376.77	0.00	N/A		
3,300.00	3,058.06	2,877.37	2,832.93	0.00		161.63	98.14	484.14	1,438.13	1,438.13	0.00	N/A		
3,400.00	3,144.65	2,956.31	2,910.10	0.00		161.69	104.50	499.54	1,499.50	1,499.50	0.00	N/A		
3,500.00	3,231.24	3,035.26	2,987.26	0.00		161.75	110.85	514.95	1,560.87	1,560.87	0.00	N/A		
3,600.00	3,317.83	3,114.21	3,064.43	0.00		161.80	117.21	530.36	1,622.24	1,622.24	0.00	N/A		
3,700.00	3,404.42	3,193.15	3,141.59	0.00		161.85	123.56	545.77	1,683.61	1,683.61	0.00	N/A		
3,741.83	3,440.64	3,226.18	3,173.87	0.00		161.87	126.22	552.21	1,709.28	1,709.28	0.00	N/A		
3,800.00	3,491.44	3,272.61	3,219.26	0.00		162.29	129.96	561.28	1,744.31	1,744.31	0.00	N/A		
3,900.00	3,580.71	3,354.75	3,299.55	0.00		162.89	136.58	577.31	1,801.32	1,801.32	0.00	N/A		
4,000.00	3,672.22	3,439.61	3,382.49	0.00		163.35	143.41	593.87	1,854.16	1,854.16	0.00	N/A		
4,100.00	3,765.71	3,525.95	3,467.87	0.00		163.69	150.44	610.92	1,902.69	1,902.69	0.00	N/A		
4,200.00	3,860.93	3,616.55	3,555.45	0.00		163.93	157.66	628.41	1,946.77	1,946.77	0.00	N/A		
4,300.00	3,957.61	3,708.16	3,644.99	0.00		164.08	165.03	646.28	1,986.29	1,986.29	0.00	N/A		
4,400.00	4,055.50	3,801.52	3,736.25	0.00		164.14	172.55	664.51	2,021.18	2,021.18	0.00	N/A		
4,500.00	4,154.32	3,896.37	3,828.96	0.00		164.12	180.19	683.02	2,051.34	2,051.34	0.00	N/A		
4,600.00	4,253.80	3,992.47	3,922.89	0.00		164.03	187.92	701.78	2,076.71	2,076.71	0.00	N/A		
4,700.00	4,353.67	4,277.35	4,203.65	0.00		163.41	205.86	745.24	2,095.56	2,095.56	0.00	N/A		
4,742.33	4,396.00	4,469.97	4,396.00	0.00		108.26	209.11	753.13	2,097.09	2,097.09	0.00	N/A		
4,800.00	4,453.67	4,527.64	4,453.67	0.00		108.26	209.11	753.13	2,097.09	2,097.09	0.00	N/A		
4,900.00	4,553.67	4,627.64	4,553.67	0.00		108.26	209.11	753.13	2,097.09	2,097.09	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41E - OH - Plan #1												Offset Site Error:	0.00 ft
Survey Program: D-Gyro												Offset Well Error:	0.00 ft
Reference			Offset		Semi Major Axis			Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Hightide Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,653.67	4,727.64	4,653.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,100.00	4,753.67	4,827.64	4,753.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,200.00	4,853.67	4,927.64	4,853.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,300.00	4,953.67	5,027.64	4,953.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,400.00	5,053.67	5,127.64	5,053.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,500.00	5,153.67	5,227.64	5,153.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,600.00	5,253.67	5,327.64	5,253.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,700.00	5,353.67	5,427.64	5,353.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,800.00	5,453.67	5,527.64	5,453.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
5,900.00	5,553.67	5,627.64	5,553.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,000.00	5,653.67	5,727.64	5,653.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,100.00	5,753.67	5,827.64	5,753.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,200.00	5,853.67	5,927.64	5,853.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,300.00	5,953.67	6,027.64	5,953.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,400.00	6,053.67	6,127.64	6,053.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,500.00	6,153.67	6,227.64	6,153.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,600.00	6,253.67	6,327.64	6,253.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,700.00	6,353.67	6,427.64	6,353.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,800.00	6,453.67	6,527.64	6,453.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
6,900.00	6,553.67	6,627.64	6,553.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,000.00	6,653.67	6,727.64	6,653.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,100.00	6,753.67	6,827.64	6,753.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,200.00	6,853.67	6,927.64	6,853.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,300.00	6,953.67	7,027.64	6,953.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,400.00	7,053.67	7,127.64	7,053.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,500.00	7,153.67	7,227.64	7,153.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,600.00	7,253.67	7,327.64	7,253.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,700.00	7,353.67	7,427.64	7,353.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,800.00	7,453.67	7,527.64	7,453.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
7,900.00	7,553.67	7,627.64	7,553.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,000.00	7,653.67	7,727.64	7,653.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,100.00	7,753.67	7,827.64	7,753.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,200.00	7,853.67	7,927.64	7,853.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,300.00	7,953.67	8,027.64	7,953.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,400.00	8,053.67	8,127.64	8,053.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,500.00	8,153.67	8,227.64	8,153.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,600.00	8,253.67	8,327.64	8,253.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,700.00	8,353.67	8,427.64	8,353.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,800.00	8,453.67	8,527.64	8,453.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
8,900.00	8,553.67	8,627.64	8,553.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,000.00	8,653.67	8,727.64	8,653.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,100.00	8,753.67	8,827.64	8,753.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,200.00	8,853.67	8,927.64	8,853.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,300.00	8,953.67	9,027.64	8,953.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,400.00	9,053.67	9,127.64	9,053.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,500.00	9,153.67	9,227.64	9,153.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,600.00	9,253.67	9,327.64	9,253.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,700.00	9,353.67	9,427.64	9,353.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,800.00	9,453.67	9,527.64	9,453.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
9,900.00	9,553.67	9,627.64	9,553.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
10,000.00	9,653.67	9,727.64	9,653.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	
10,100.00	9,753.67	9,827.64	9,753.67	0.00	108.26	209.11	753.13	2,097.09	2,097.09	2,097.09	0.00	N/A	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41E - OH - Plan #1													Offset Site Error:	0.00 ft			
Survey Program:		Offset											Distance			Warning	
0-Gyro		Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		Offset Well Error:	0.00 ft
10,200.00	9,853.67	9,927.64	9,853.67		0.00		108.26		209.11	753.13	2,097.09	2,097.09	0.00	N/A			
10,300.00	9,953.67	10,027.64	9,953.67		0.00		108.26		209.11	753.13	2,097.09	2,097.09	0.00	N/A			
10,400.00	10,053.67	10,127.64	10,053.67		0.00		108.26		209.11	753.13	2,097.09	2,097.09	0.00	N/A			
10,500.00	10,153.67	10,227.64	10,153.67		0.00		108.26		209.11	753.13	2,097.09	2,097.09	0.00	N/A			
10,600.00	10,253.67	10,327.64	10,253.67		0.00		108.26		209.11	753.13	2,097.09	2,097.09	0.00	N/A			
10,646.33	10,300.00	10,373.97	10,300.00		0.00		108.26		209.11	753.13	2,097.09	2,097.09	0.00	N/A			

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41F - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Hightside Toolface (°)	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00		130.95	-49.17	56.66	75.02	75.02	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00		130.95	-49.17	56.66	75.02	75.02	0.00	N/A		
200.00	200.00	200.00	200.00	0.00		130.95	-49.17	56.66	75.02	75.02	0.00	N/A		
300.00	300.00	300.00	300.00	0.00		130.95	-49.17	56.66	75.02	75.02	0.00	N/A		
400.00	400.00	400.00	400.00	0.00		130.95	-49.17	56.66	75.02	75.02	0.00	N/A		
500.00	500.00	500.00	500.00	0.00		130.95	-49.17	56.66	75.02	75.02	0.00	N/A CC, ES		
600.00	599.98	601.41	601.39	0.00		-175.30	-47.39	56.91	75.81	75.81	0.00	N/A		
700.00	699.84	702.59	702.42	0.00		-178.85	-42.08	57.66	78.40	78.40	0.00	N/A		
800.00	799.45	802.24	801.83	0.00		176.72	-35.16	58.64	84.06	84.06	0.00	N/A		
900.00	898.70	901.63	900.97	0.00		173.20	-28.25	59.61	93.60	93.60	0.00	N/A		
1,000.00	997.47	1,000.65	999.75	0.00		170.62	-21.37	60.58	106.83	106.83	0.00	N/A		
1,100.00	1,095.62	1,099.17	1,098.03	0.00		168.91	-14.53	61.55	123.61	123.61	0.00	N/A		
1,200.00	1,193.06	1,197.08	1,195.69	0.00		167.87	-7.72	62.50	143.82	143.82	0.00	N/A		
1,300.00	1,289.64	1,294.25	1,292.63	0.00		167.31	-0.87	63.46	167.38	167.38	0.00	N/A		
1,400.00	1,385.27	1,390.57	1,388.71	0.00		167.09	5.72	64.40	194.24	194.24	0.00	N/A		
1,500.00	1,479.82	1,485.92	1,483.82	0.00		167.08	12.34	65.33	224.36	224.36	0.00	N/A		
1,600.00	1,573.17	1,580.18	1,577.85	0.00		167.21	18.89	66.26	257.72	257.72	0.00	N/A		
1,700.00	1,665.21	1,673.24	1,670.68	0.00		167.41	25.36	67.17	294.26	294.26	0.00	N/A		
1,800.00	1,755.84	1,764.99	1,762.20	0.00		167.66	31.73	68.07	333.97	333.97	0.00	N/A		
1,900.00	1,844.94	1,855.31	1,852.30	0.00		167.92	38.01	68.95	376.80	376.80	0.00	N/A		
2,000.75	1,933.04	1,944.76	1,941.52	0.00		168.18	44.22	69.83	423.07	423.07	0.00	N/A		
2,100.00	2,018.98	2,032.06	2,028.62	0.00		168.61	50.29	70.68	470.18	470.18	0.00	N/A		
2,200.00	2,105.57	2,120.03	2,116.37	0.00		168.96	56.40	71.55	517.67	517.67	0.00	N/A		
2,300.00	2,192.16	2,207.99	2,204.12	0.00		169.25	62.51	72.41	565.16	565.16	0.00	N/A		
2,400.00	2,278.75	2,295.96	2,291.87	0.00		169.50	68.63	73.27	612.67	612.67	0.00	N/A		
2,500.00	2,365.34	2,383.93	2,379.62	0.00		169.71	74.74	74.13	660.19	660.19	0.00	N/A		
2,600.00	2,451.93	2,471.89	2,467.37	0.00		169.90	80.85	74.99	707.71	707.71	0.00	N/A		
2,700.00	2,538.52	2,559.86	2,555.11	0.00		170.06	86.96	75.85	755.23	755.23	0.00	N/A		
2,800.00	2,625.11	2,647.83	2,642.86	0.00		170.20	93.07	76.72	802.76	802.76	0.00	N/A		
2,900.00	2,711.70	2,735.79	2,730.61	0.00		170.32	98.19	77.58	850.29	850.29	0.00	N/A		
3,000.00	2,798.29	2,823.76	2,818.36	0.00		170.44	105.30	78.44	897.83	897.83	0.00	N/A		
3,100.00	2,884.88	2,911.73	2,906.11	0.00		170.54	111.41	79.30	945.37	945.37	0.00	N/A		
3,200.00	2,971.47	2,999.69	2,993.86	0.00		170.63	117.52	80.16	992.90	992.90	0.00	N/A		
3,300.00	3,058.06	3,087.66	3,081.61	0.00		170.71	123.63	81.02	1,040.45	1,040.45	0.00	N/A		
3,400.00	3,144.65	3,175.63	3,169.36	0.00		170.79	129.74	81.89	1,087.99	1,087.99	0.00	N/A		
3,500.00	3,231.24	3,263.59	3,257.11	0.00		170.86	135.86	82.75	1,135.53	1,135.53	0.00	N/A		
3,600.00	3,317.83	3,351.56	3,344.86	0.00		170.92	141.97	83.61	1,183.08	1,183.08	0.00	N/A		
3,700.00	3,404.42	3,439.53	3,432.61	0.00		170.98	148.08	84.47	1,230.63	1,230.63	0.00	N/A		
3,741.83	3,440.64	3,478.33	3,469.32	0.00		171.00	150.64	84.83	1,250.52	1,250.52	0.00	N/A		
3,800.00	3,491.44	3,527.90	3,520.77	0.00		171.17	154.22	85.34	1,277.40	1,277.40	0.00	N/A		
3,900.00	3,580.71	3,618.39	3,611.03	0.00		171.39	160.51	86.22	1,319.95	1,319.95	0.00	N/A		
4,000.00	3,672.22	3,710.95	3,703.37	0.00		171.54	166.94	87.13	1,357.76	1,357.76	0.00	N/A		
4,100.00	3,765.71	3,805.34	3,797.52	0.00		171.64	173.50	88.05	1,390.72	1,390.72	0.00	N/A		
4,200.00	3,860.93	3,901.29	3,893.24	0.00		171.67	180.16	88.99	1,418.76	1,418.76	0.00	N/A		
4,300.00	3,957.61	3,998.55	3,990.26	0.00		171.66	186.92	89.95	1,441.80	1,441.80	0.00	N/A		
4,400.00	4,055.50	4,096.84	4,088.31	0.00		171.59	193.75	90.91	1,459.77	1,459.77	0.00	N/A		
4,500.00	4,154.32	4,195.90	4,187.12	0.00		171.48	200.63	91.88	1,472.63	1,472.63	0.00	N/A		
4,600.00	4,253.80	4,287.71	4,278.72	0.00		171.34	206.75	92.74	1,480.47	1,480.47	0.00	N/A		
4,700.00	4,353.67	4,368.05	4,359.02	0.00		171.28	209.34	93.11	1,484.23	1,484.23	0.00	N/A		
4,742.33	4,396.00	4,405.04	4,396.00	0.00		116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A		
4,800.00	4,453.67	4,462.70	4,453.67	0.00		116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A		
4,900.00	4,553.67	4,562.70	4,553.67	0.00		116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41F - OH - Plan #1												Offset Site Error:	0.00 ft
Survey Program: 0-Gyro												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance					Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface	Offset Wellbore Centres	+N-S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
5,000.00	4,653.67	4,662.70	4,653.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,100.00	4,753.67	4,762.70	4,753.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,200.00	4,853.67	4,862.70	4,853.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,300.00	4,953.67	4,962.70	4,953.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,400.00	5,053.67	5,062.70	5,053.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,500.00	5,153.67	5,162.70	5,153.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,600.00	5,253.67	5,262.70	5,253.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,700.00	5,353.67	5,362.70	5,353.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,800.00	5,453.67	5,462.70	5,453.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
5,900.00	5,553.67	5,562.70	5,553.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,000.00	5,653.67	5,662.70	5,653.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,100.00	5,753.67	5,762.70	5,753.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,200.00	5,853.67	5,862.70	5,853.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,300.00	5,953.67	5,962.70	5,953.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,400.00	6,053.67	6,062.70	6,053.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,500.00	6,153.67	6,162.70	6,153.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,600.00	6,253.67	6,262.70	6,253.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,700.00	6,353.67	6,362.70	6,353.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,800.00	6,453.67	6,462.70	6,453.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
6,900.00	6,553.67	6,562.70	6,553.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,000.00	6,653.67	6,662.70	6,653.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,100.00	6,753.67	6,762.70	6,753.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,200.00	6,853.67	6,862.70	6,853.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,300.00	6,953.67	6,962.70	6,953.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,400.00	7,053.67	7,062.70	7,053.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,500.00	7,153.67	7,162.70	7,153.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,600.00	7,253.67	7,262.70	7,253.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,700.00	7,353.67	7,362.70	7,353.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,800.00	7,453.67	7,462.70	7,453.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
7,900.00	7,553.67	7,562.70	7,553.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,000.00	7,653.67	7,662.70	7,653.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,100.00	7,753.67	7,762.70	7,753.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,200.00	7,853.67	7,862.70	7,853.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,300.00	7,953.67	7,962.70	7,953.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,400.00	8,053.67	8,062.70	8,053.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,500.00	8,153.67	8,162.70	8,153.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,600.00	8,253.67	8,262.70	8,253.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,700.00	8,353.67	8,362.70	8,353.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,800.00	8,453.67	8,462.70	8,453.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
8,900.00	8,553.67	8,562.70	8,553.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,000.00	8,653.67	8,662.70	8,653.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,100.00	8,753.67	8,762.70	8,753.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,200.00	8,853.67	8,862.70	8,853.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,300.00	8,953.67	8,962.70	8,953.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,400.00	9,053.67	9,062.70	9,053.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,500.00	9,153.67	9,162.70	9,153.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,600.00	9,253.67	9,262.70	9,253.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,700.00	9,353.67	9,362.70	9,353.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,800.00	9,453.67	9,462.70	9,453.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
9,900.00	9,553.67	9,562.70	9,553.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
10,000.00	9,653.67	9,662.70	9,653.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A
10,100.00	9,753.67	9,762.70	9,753.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	0.00	0.00	N/A

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41F - OH - Plan #1													Offset Site Error:	0.00 ft
													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10,200.00	9,853.67	9,862.70	9,853.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A			
10,300.00	9,953.67	9,962.70	9,953.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A			
10,400.00	10,053.67	10,062.70	10,053.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A			
10,500.00	10,153.67	10,162.70	10,153.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A			
10,600.00	10,253.67	10,262.70	10,253.67	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A			
10,646.33	10,300.00	10,309.04	10,300.00	0.00	116.25	209.46	93.12	1,484.64	1,484.64	0.00	N/A			

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41G - OH - Plan #1												Offset Site Error:	0.00 ft
Survey Program: D-Gyro												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Distance			Separation Factor	Warning
		Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset (ft)				Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		
0.00	0.00	0.00	0.00	0.00	130.88	-19.67	22.72	30.05	30.05	30.05	0.00	N/A SF	
100.00	100.00	100.00	100.00	0.00	130.88	-19.67	22.72	30.05	30.05	30.05	0.00	N/A	
200.00	200.00	200.00	200.00	0.00	130.88	-19.67	22.72	30.05	30.05	30.05	0.00	N/A	
300.00	300.00	300.00	300.00	0.00	130.88	-19.67	22.72	30.05	30.05	30.05	0.00	N/A	
400.00	400.00	400.00	400.00	0.00	130.88	-19.67	22.72	30.05	30.05	30.05	0.00	N/A	
500.00	500.00	500.00	500.00	0.00	130.88	-19.67	22.72	30.05	30.05	30.05	0.00	N/A CC, ES	
600.00	599.98	601.00	600.97	0.00	-173.29	-19.03	21.06	30.13	30.13	30.13	0.00	N/A	
700.00	699.84	701.98	701.81	0.00	-170.93	-17.10	16.08	30.40	30.40	30.40	0.00	N/A	
800.00	799.45	802.94	802.37	0.00	-167.11	-13.89	7.80	30.97	30.97	30.97	0.00	N/A	
900.00	898.70	903.86	902.53	0.00	-162.02	-9.40	-3.78	31.97	31.97	31.97	0.00	N/A	
1,000.00	997.47	1,004.74	1,002.13	0.00	-156.00	-3.64	-18.63	33.60	33.60	33.60	0.00	N/A	
1,100.00	1,095.62	1,104.77	1,100.53	0.00	-150.90	2.86	-35.42	36.96	36.96	36.96	0.00	N/A	
1,200.00	1,193.06	1,204.54	1,198.66	0.00	-149.13	9.37	-52.20	43.50	43.50	43.50	0.00	N/A	
1,300.00	1,289.64	1,304.08	1,296.57	0.00	-149.79	15.86	-68.94	53.03	53.03	53.03	0.00	N/A	
1,400.00	1,385.27	1,403.26	1,394.12	0.00	-151.71	22.32	-85.62	65.61	65.61	65.61	0.00	N/A	
1,500.00	1,479.82	1,501.96	1,491.20	0.00	-154.07	28.75	-102.21	81.35	81.35	81.35	0.00	N/A	
1,600.00	1,573.17	1,600.06	1,587.69	0.00	-156.44	35.15	-118.71	100.32	100.32	100.32	0.00	N/A	
1,700.00	1,665.21	1,697.44	1,683.48	0.00	-158.60	41.49	-135.09	122.61	122.61	122.61	0.00	N/A	
1,800.00	1,755.84	1,793.98	1,778.43	0.00	-160.51	47.79	-151.32	148.22	148.22	148.22	0.00	N/A	
1,900.00	1,844.94	1,889.56	1,872.45	0.00	-162.15	54.02	-167.40	177.16	177.16	177.16	0.00	N/A	
2,000.75	1,933.04	1,984.78	1,966.11	0.00	-163.57	60.22	-183.41	209.65	209.65	209.65	0.00	N/A	
2,100.00	2,018.98	2,078.01	2,057.81	0.00	-164.86	66.30	-199.09	243.37	243.37	243.37	0.00	N/A	
2,200.00	2,105.57	2,171.94	2,150.20	0.00	-165.84	72.42	-214.88	277.42	277.42	277.42	0.00	N/A	
2,300.00	2,192.16	2,265.87	2,242.59	0.00	-166.60	78.55	-230.68	311.52	311.52	311.52	0.00	N/A	
2,400.00	2,278.75	2,359.81	2,334.98	0.00	-167.21	84.67	-245.48	345.67	345.67	345.67	0.00	N/A	
2,500.00	2,365.34	2,453.74	2,427.37	0.00	-167.72	90.79	-262.27	379.84	379.84	379.84	0.00	N/A	
2,600.00	2,451.93	2,547.67	2,519.77	0.00	-168.14	98.91	-278.07	414.04	414.04	414.04	0.00	N/A	
2,700.00	2,538.52	2,641.60	2,612.16	0.00	-168.49	103.03	-283.87	448.25	448.25	448.25	0.00	N/A	
2,800.00	2,625.11	2,735.53	2,704.55	0.00	-168.80	109.16	-309.66	482.48	482.48	482.48	0.00	N/A	
2,900.00	2,711.70	2,829.46	2,796.94	0.00	-169.07	115.28	-325.46	516.71	516.71	516.71	0.00	N/A	
3,000.00	2,798.29	2,923.39	2,889.33	0.00	-169.30	121.40	-341.26	550.96	550.96	550.96	0.00	N/A	
3,100.00	2,884.88	3,017.33	2,981.72	0.00	-169.50	127.52	-357.05	585.21	585.21	585.21	0.00	N/A	
3,200.00	2,971.47	3,111.26	3,074.11	0.00	-169.69	133.65	-372.85	619.47	619.47	619.47	0.00	N/A	
3,300.00	3,058.06	3,205.19	3,166.50	0.00	-169.85	139.77	-388.64	653.73	653.73	653.73	0.00	N/A	
3,400.00	3,144.65	3,299.12	3,258.89	0.00	-170.00	145.89	-404.44	688.00	688.00	688.00	0.00	N/A	
3,500.00	3,231.24	3,393.05	3,351.29	0.00	-170.13	152.01	-420.24	722.27	722.27	722.27	0.00	N/A	
3,600.00	3,317.83	3,486.98	3,443.68	0.00	-170.25	158.14	-436.03	756.54	756.54	756.54	0.00	N/A	
3,700.00	3,404.42	3,580.92	3,536.07	0.00	-170.36	164.26	-451.83	790.82	790.82	790.82	0.00	N/A	
3,741.83	3,440.64	3,620.21	3,574.72	0.00	-170.41	166.82	-458.44	805.16	805.16	805.16	0.00	N/A	
3,800.00	3,491.44	3,675.14	3,628.75	0.00	-170.55	170.40	-467.68	824.28	824.28	824.28	0.00	N/A	
3,900.00	3,580.71	3,770.84	3,722.87	0.00	-170.73	176.64	-483.77	853.25	853.25	853.25	0.00	N/A	
4,000.00	3,672.22	3,867.90	3,818.35	0.00	-170.82	182.96	-500.09	877.25	877.25	877.25	0.00	N/A	
4,100.00	3,765.71	3,966.07	3,914.91	0.00	-170.83	189.36	-516.60	896.20	896.20	896.20	0.00	N/A	
4,200.00	3,860.93	4,065.07	4,012.29	0.00	-170.76	195.82	-533.25	910.06	910.06	910.06	0.00	N/A	
4,300.00	3,957.61	4,141.63	4,087.71	0.00	-170.68	200.55	-545.48	919.72	919.72	919.72	0.00	N/A	
4,400.00	4,055.50	4,200.00	4,145.51	0.00	-170.65	203.48	-553.01	927.55	927.55	927.55	0.00	N/A	
4,500.00	4,154.32	4,279.52	4,224.61	0.00	-170.60	206.42	-560.62	933.36	933.36	933.36	0.00	N/A	
4,600.00	4,253.80	4,348.40	4,293.35	0.00	-170.59	208.01	-564.72	937.42	937.42	937.42	0.00	N/A	
4,700.00	4,353.67	4,417.27	4,362.18	0.00	-170.59	208.71	-566.51	939.62	939.62	939.62	0.00	N/A	
4,742.33	4,396.00	4,451.09	4,396.00	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A	
4,800.00	4,453.67	4,508.75	4,453.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A	
4,900.00	4,553.67	4,608.75	4,553.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

NA 27-41 Pad - North Alger 27-41G - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Distance					Warning		
				Reference	Offset	Highside Toolface	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,653.67	4,708.75	4,653.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,100.00	4,753.67	4,808.75	4,753.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,200.00	4,853.67	4,908.75	4,853.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,300.00	4,953.67	5,008.75	4,953.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,400.00	5,053.67	5,108.75	5,053.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,500.00	5,153.67	5,208.75	5,153.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,600.00	5,253.67	5,308.75	5,253.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,700.00	5,353.67	5,408.75	5,353.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,800.00	5,453.67	5,508.75	5,453.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
5,900.00	5,553.67	5,608.75	5,553.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,000.00	5,653.67	5,708.75	5,653.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,100.00	5,753.67	5,808.75	5,753.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,200.00	5,853.67	5,908.75	5,853.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,300.00	5,953.67	6,008.75	5,953.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,400.00	6,053.67	6,108.75	6,053.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,500.00	6,153.67	6,208.75	6,153.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,600.00	6,253.67	6,308.75	6,253.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,700.00	6,353.67	6,408.75	6,353.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,800.00	6,453.67	6,508.75	6,453.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
6,900.00	6,553.67	6,608.75	6,553.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,000.00	6,653.67	6,708.75	6,653.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,100.00	6,753.67	6,808.75	6,753.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,200.00	6,853.67	6,908.75	6,853.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,300.00	6,953.67	7,008.75	6,953.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,400.00	7,053.67	7,108.75	7,053.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,500.00	7,153.67	7,208.75	7,153.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,600.00	7,253.67	7,308.75	7,253.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,700.00	7,353.67	7,408.75	7,353.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,800.00	7,453.67	7,508.75	7,453.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
7,900.00	7,553.67	7,608.75	7,553.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,000.00	7,653.67	7,708.75	7,653.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,100.00	7,753.67	7,808.75	7,753.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,200.00	7,853.67	7,908.75	7,853.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,300.00	7,953.67	8,008.75	7,953.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,400.00	8,053.67	8,108.75	8,053.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,500.00	8,153.67	8,208.75	8,153.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,600.00	8,253.67	8,308.75	8,253.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,700.00	8,353.67	8,408.75	8,353.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,800.00	8,453.67	8,508.75	8,453.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
8,900.00	8,553.67	8,608.75	8,553.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,000.00	8,653.67	8,708.75	8,653.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,100.00	8,753.67	8,808.75	8,753.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,200.00	8,853.67	8,908.75	8,853.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,300.00	8,953.67	9,008.75	8,953.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,400.00	9,053.67	9,108.75	9,053.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,500.00	9,153.67	9,208.75	9,153.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,600.00	9,253.67	9,308.75	9,253.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,700.00	9,353.67	9,408.75	9,353.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,800.00	9,453.67	9,508.75	9,453.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
9,900.00	9,553.67	9,608.75	9,553.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
10,000.00	9,653.67	9,708.75	9,653.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		
10,100.00	9,753.67	9,808.75	9,753.67	0.00	134.38	208.74	-566.60	939.96	939.96	939.96	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41G - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (")	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
+N-S (ft)	+E-W (ft)	+N-S (ft)	+E-W (ft)	+N-S (ft)	+E-W (ft)	+N-S (ft)	+N-S (ft)	+E-W (ft)	Centres (ft)	Ellipses (ft)	(ft)			
10,200.00	9,853.67	9,908.75	9,853.67	0.00		134.38	208.74	-566.60	939.96	939.96	0.00	N/A		
10,300.00	9,953.67	10,008.75	9,953.67	0.00		134.38	208.74	-566.60	939.96	939.96	0.00	N/A		
10,400.00	10,053.67	10,108.75	10,053.67	0.00		134.38	208.74	-566.60	939.96	939.96	0.00	N/A		
10,500.00	10,153.67	10,208.75	10,153.67	0.00		134.38	208.74	-566.60	939.96	939.96	0.00	N/A		
10,600.00	10,253.67	10,308.75	10,253.67	0.00		134.38	208.74	-566.60	939.96	939.96	0.00	N/A		
10,646.33	10,300.00	10,355.09	10,300.00	0.00		134.38	208.74	-566.60	939.96	939.96	0.00	N/A		

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41H - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Distance					Warning		
				Reference	Offset	Hightide Toolface (")	Offset Wellbore Centre	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
+N-S (ft)	+E-W (ft)						+N-S (ft)	+E-W (ft)						
0.00	0.00	0.00	0.00	0.00		130.77	-29.50	34.22	45.18	45.18	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00		130.77	-29.50	34.22	45.18	45.18	0.00	N/A		
200.00	200.00	200.00	200.00	0.00		130.77	-29.50	34.22	45.18	45.18	0.00	N/A		
300.00	300.00	300.00	300.00	0.00		130.77	-29.50	34.22	45.18	45.18	0.00	N/A		
400.00	400.00	400.00	400.00	0.00		130.77	-29.50	34.22	45.18	45.18	0.00	N/A		
500.00	500.00	500.00	500.00	0.00		130.77	-29.50	34.22	45.18	45.18	0.00	N/A CC, ES		
600.00	599.98	601.38	601.36	0.00		-173.29	-29.17	32.46	45.40	45.40	0.00	N/A		
700.00	699.84	702.72	702.55	0.00		-170.61	-28.18	27.17	46.10	46.10	0.00	N/A		
800.00	799.45	803.99	803.42	0.00		-166.34	-26.54	18.38	47.48	47.48	0.00	N/A		
900.00	898.70	905.16	903.81	0.00		-160.82	-24.24	6.11	49.82	49.82	0.00	N/A		
1,000.00	997.47	1,006.19	1,003.56	0.00		-154.51	-21.29	-9.62	53.42	53.42	0.00	N/A		
1,100.00	1,095.62	1,107.04	1,102.51	0.00		-147.97	-17.71	-28.76	58.55	58.55	0.00	N/A		
1,200.00	1,193.06	1,207.70	1,200.52	0.00		-141.65	-13.50	-51.26	65.38	65.38	0.00	N/A		
1,300.00	1,289.64	1,308.12	1,297.45	0.00		-135.89	-8.66	-77.07	74.00	74.00	0.00	N/A		
1,400.00	1,385.27	1,408.29	1,393.14	0.00		-130.83	-3.22	-106.12	84.42	84.42	0.00	N/A		
1,500.00	1,479.82	1,508.16	1,487.48	0.00		-126.48	2.81	-138.35	96.58	96.58	0.00	N/A		
1,600.00	1,573.17	1,607.72	1,580.33	0.00		-122.78	9.42	-173.67	110.41	110.41	0.00	N/A		
1,700.00	1,665.21	1,706.95	1,671.56	0.00		-119.66	16.60	-212.01	125.85	125.85	0.00	N/A		
1,800.00	1,755.84	1,805.40	1,761.39	0.00		-117.69	24.02	-251.60	142.97	142.97	0.00	N/A		
1,900.00	1,844.94	1,903.62	1,851.01	0.00		-117.16	31.41	-291.11	161.73	161.73	0.00	N/A		
2,000.75	1,933.04	2,002.22	1,940.98	0.00		-117.65	38.84	-330.76	182.24	182.24	0.00	N/A		
2,100.00	2,018.98	2,099.14	2,029.42	0.00		-118.77	46.14	-369.75	203.30	203.30	0.00	N/A		
2,200.00	2,105.57	2,196.80	2,118.52	0.00		-119.89	53.49	-409.02	224.57	224.57	0.00	N/A		
2,300.00	2,192.16	2,294.45	2,207.63	0.00		-120.45	60.85	-448.30	245.89	245.89	0.00	N/A		
2,400.00	2,278.75	2,392.10	2,296.73	0.00		-121.08	68.20	-487.57	267.24	267.24	0.00	N/A		
2,500.00	2,365.34	2,489.76	2,385.84	0.00		-121.63	75.55	-526.85	288.62	288.62	0.00	N/A		
2,600.00	2,451.93	2,587.41	2,474.94	0.00		-122.09	82.91	-566.12	310.02	310.02	0.00	N/A		
2,700.00	2,538.52	2,685.07	2,564.04	0.00		-122.50	90.26	-605.40	331.44	331.44	0.00	N/A		
2,800.00	2,625.11	2,782.72	2,653.15	0.00		-122.86	97.62	-644.68	352.88	352.88	0.00	N/A		
2,900.00	2,711.70	2,880.37	2,742.25	0.00		-123.18	104.97	-683.95	374.32	374.32	0.00	N/A		
3,000.00	2,798.29	2,978.03	2,831.36	0.00		-123.46	112.32	-723.23	395.77	395.77	0.00	N/A		
3,100.00	2,884.88	3,075.68	2,920.46	0.00		-123.71	119.68	-762.50	417.24	417.24	0.00	N/A		
3,200.00	2,971.47	3,173.34	3,099.57	0.00		-123.94	127.03	-801.78	438.71	438.71	0.00	N/A		
3,300.00	3,058.06	3,270.99	3,098.67	0.00		-124.15	134.39	-841.05	460.18	460.18	0.00	N/A		
3,400.00	3,144.65	3,368.64	3,187.78	0.00		-124.34	141.74	-880.33	481.66	481.66	0.00	N/A		
3,500.00	3,231.24	3,466.30	3,276.88	0.00		-124.51	149.10	-919.61	503.15	503.15	0.00	N/A		
3,600.00	3,317.83	3,563.95	3,365.99	0.00		-124.67	156.45	-958.88	524.64	524.64	0.00	N/A		
3,700.00	3,404.42	3,661.60	3,455.09	0.00		-124.81	163.80	-998.16	546.13	546.13	0.00	N/A		
3,741.83	3,440.64	3,702.46	3,492.36	0.00		-124.87	166.88	-1,014.59	555.12	555.12	0.00	N/A		
3,800.00	3,491.44	3,759.37	3,544.29	0.00		-125.18	171.17	-1,037.48	567.13	567.13	0.00	N/A		
3,900.00	3,580.71	3,855.27	3,631.93	0.00		-125.34	178.34	-1,075.77	585.51	585.51	0.00	N/A		
4,000.00	3,672.22	3,947.57	3,717.65	0.00		-125.43	184.63	-1,109.37	601.78	601.78	0.00	N/A		
4,100.00	3,765.71	4,040.16	3,805.20	0.00		-125.52	190.17	-1,138.95	616.10	616.10	0.00	N/A		
4,200.00	3,860.93	4,133.00	3,894.36	0.00		-125.60	194.93	-1,164.38	628.44	628.44	0.00	N/A		
4,300.00	3,957.61	4,226.06	3,984.87	0.00		-125.69	198.90	-1,185.58	638.77	638.77	0.00	N/A		
4,400.00	4,055.50	4,319.30	4,076.51	0.00		-125.77	202.05	-1,202.44	647.06	647.06	0.00	N/A		
4,500.00	4,154.32	4,412.67	4,169.01	0.00		-125.84	204.39	-1,214.90	653.28	653.28	0.00	N/A		
4,600.00	4,253.80	4,506.12	4,262.10	0.00		-125.91	205.89	-1,222.90	657.44	657.44	0.00	N/A		
4,700.00	4,353.67	4,600.00	4,355.90	0.00		-125.97	206.55	-1,226.43	659.51	659.51	0.00	N/A		
4,742.33	4,396.00	4,640.10	4,396.00	0.00		178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A		
4,800.00	4,453.67	4,697.77	4,453.67	0.00		178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A		
4,900.00	4,553.67	4,797.77	4,553.67	0.00		178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

NA 27-41 Pad - North Alger 27-41H - OH - Plan #1													Offset Site Error:	0.00 ft
Offset Design		Survey Program: 0-Gyro											Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance							Warning
		Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Hightside Toolface (")	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,653.67	4,897.77	4,653.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,100.00	4,753.67	4,997.77	4,753.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,200.00	4,853.67	5,097.77	4,853.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,300.00	4,953.67	5,197.77	4,953.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,400.00	5,053.67	5,297.77	5,053.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,500.00	5,153.67	5,397.77	5,153.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,600.00	5,253.67	5,497.77	5,253.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,700.00	5,353.67	5,597.77	5,353.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,800.00	5,453.67	5,697.77	5,453.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
5,900.00	5,553.67	5,797.77	5,553.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,000.00	5,653.67	5,897.77	5,653.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,100.00	5,753.67	5,997.77	5,753.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,200.00	5,853.67	6,097.77	5,853.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,300.00	5,953.67	6,197.77	5,953.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,400.00	6,053.67	6,297.77	6,053.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,500.00	6,153.67	6,397.77	6,153.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,600.00	6,253.67	6,497.77	6,253.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,700.00	6,353.67	6,597.77	6,353.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,800.00	6,453.67	6,697.77	6,453.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
6,900.00	6,553.67	6,797.77	6,553.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,000.00	6,653.67	6,897.77	6,653.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,100.00	6,753.67	6,997.77	6,753.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,200.00	6,853.67	7,097.77	6,853.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,300.00	6,953.67	7,197.77	6,953.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,400.00	7,053.67	7,297.77	7,053.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,500.00	7,153.67	7,397.77	7,153.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,600.00	7,253.67	7,497.77	7,253.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,700.00	7,353.67	7,597.77	7,353.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,800.00	7,453.67	7,697.77	7,453.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
7,900.00	7,553.67	7,797.77	7,553.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,000.00	7,653.67	7,897.77	7,653.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,100.00	7,753.67	7,997.77	7,753.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,200.00	7,853.67	8,097.77	7,853.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,300.00	7,953.67	8,197.77	7,953.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,400.00	8,053.67	8,297.77	8,053.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,500.00	8,153.67	8,397.77	8,153.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,600.00	8,253.67	8,497.77	8,253.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,700.00	8,353.67	8,597.77	8,353.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,800.00	8,453.67	8,697.77	8,453.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
8,900.00	8,553.67	8,797.77	8,553.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,000.00	8,653.67	8,897.77	8,653.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,100.00	8,753.67	9,097.77	8,753.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,200.00	8,853.67	9,097.77	8,853.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,300.00	8,953.67	9,197.77	8,953.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,400.00	9,053.67	9,297.77	9,053.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,500.00	9,153.67	9,397.77	9,153.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,600.00	9,253.67	9,497.77	9,253.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,700.00	9,353.67	9,597.77	9,353.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,800.00	9,453.67	9,697.77	9,453.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
9,900.00	9,553.67	9,797.77	9,553.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,000.00	9,653.67	9,897.77	9,653.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,100.00	9,753.67	9,997.77	9,753.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co, LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41H - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10,200.00	9,853.67	10,097.77	9,853.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,300.00	9,953.67	10,197.77	9,953.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,400.00	10,053.67	10,297.77	10,053.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,500.00	10,153.67	10,397.77	10,153.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,600.00	10,253.67	10,497.77	10,253.67	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			
10,646.33	10,300.00	10,544.10	10,300.00	0.00	178.98	206.58	-1,226.61	659.74	659.74	0.00	N/A			

CONFIDENTIAL

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41J - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: O-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Distance					Warning		
				Reference	Offset	Hightside Toolface (*)	Offset Wellbore Centres	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
+N/S (ft)	+E/W (ft)						+N/S (ft)	+E/W (ft)						
0.00	0.00	0.00	0.00	0.00		130.53	-9.83	11.50	15.13	15.13	0.00	N/A SF		
100.00	100.00	100.00	100.00	0.00		130.53	-9.83	11.50	15.13	15.13	0.00	N/A		
200.00	200.00	200.00	200.00	0.00		130.53	-9.83	11.50	15.13	15.13	0.00	N/A		
300.00	300.00	300.00	300.00	0.00		130.53	-9.83	11.50	15.13	15.13	0.00	N/A		
400.00	400.00	400.00	400.00	0.00		130.53	-9.83	11.50	15.13	15.13	0.00	N/A		
500.00	500.00	500.00	500.00	0.00		130.53	-9.83	11.50	15.13	15.13	0.00	N/A CC, ES		
600.00	599.98	600.51	600.49	0.00		-176.86	-8.37	10.52	15.19	15.19	0.00	N/A		
700.00	699.84	700.99	700.82	0.00		176.03	-3.98	7.57	15.53	15.53	0.00	N/A		
800.00	789.45	801.42	800.86	0.00		165.17	3.32	2.67	16.59	16.59	0.00	N/A		
900.00	898.70	901.78	900.46	0.00		152.67	13.51	-4.18	18.91	18.91	0.00	N/A		
1,000.00	997.47	1,002.03	999.47	0.00		141.02	26.59	-12.96	22.85	22.85	0.00	N/A		
1,100.00	1,095.62	1,102.16	1,097.74	0.00		131.59	42.51	-23.86	28.50	28.50	0.00	N/A		
1,200.00	1,193.06	1,202.15	1,195.14	0.00		124.49	61.24	-36.24	35.80	35.80	0.00	N/A		
1,300.00	1,289.64	1,301.96	1,291.53	0.00		119.24	82.74	-50.68	44.61	44.61	0.00	N/A		
1,400.00	1,385.27	1,401.59	1,386.78	0.00		115.33	106.97	-66.95	54.85	54.85	0.00	N/A		
1,500.00	1,479.82	1,500.95	1,480.91	0.00		112.92	133.36	-84.68	66.46	66.46	0.00	N/A		
1,600.00	1,573.17	1,600.09	1,574.75	0.00		113.30	159.92	-102.52	79.45	79.45	0.00	N/A		
1,700.00	1,665.21	1,698.97	1,668.35	0.00		115.45	186.40	-120.31	93.89	93.89	0.00	N/A		
1,800.00	1,755.84	1,797.47	1,761.58	0.00		118.55	212.78	-138.02	110.07	110.07	0.00	N/A		
1,900.00	1,844.94	1,895.46	1,854.33	0.00		122.10	239.03	-155.65	128.34	128.34	0.00	N/A		
2,000.75	1,933.04	1,993.56	1,947.18	0.00		125.78	265.30	-173.30	149.19	149.19	0.00	N/A		
2,100.00	2,018.98	2,089.84	2,038.31	0.00		129.24	291.09	-190.62	171.34	171.34	0.00	N/A		
2,200.00	2,105.57	2,186.86	2,130.14	0.00		131.93	317.07	-208.07	194.12	194.12	0.00	N/A		
2,300.00	2,192.16	2,283.87	2,221.96	0.00		134.05	343.06	-225.53	217.22	217.22	0.00	N/A		
2,400.00	2,278.75	2,380.88	2,313.79	0.00		135.77	369.04	-242.98	240.54	240.54	0.00	N/A		
2,500.00	2,365.34	2,477.89	2,405.61	0.00		137.18	395.02	-260.43	264.04	264.04	0.00	N/A		
2,600.00	2,451.93	2,574.90	2,497.43	0.00		138.36	421.01	-277.88	287.67	287.67	0.00	N/A		
2,700.00	2,538.52	2,671.92	2,589.26	0.00		139.36	446.99	-295.33	311.39	311.39	0.00	N/A		
2,800.00	2,625.11	2,768.93	2,681.08	0.00		140.22	472.97	-312.79	335.19	335.19	0.00	N/A		
2,900.00	2,711.70	2,865.94	2,772.91	0.00		140.97	498.96	-330.24	359.05	359.05	0.00	N/A		
3,000.00	2,798.29	2,962.95	2,864.73	0.00		141.62	524.94	-347.69	382.96	382.96	0.00	N/A		
3,100.00	2,884.88	3,059.96	2,956.55	0.00		142.20	550.92	-365.14	406.92	406.92	0.00	N/A		
3,200.00	2,971.47	3,156.98	3,048.38	0.00		142.71	576.91	-382.59	430.90	430.90	0.00	N/A		
3,300.00	3,058.06	3,253.99	3,140.20	0.00		143.17	602.89	-400.05	454.92	454.92	0.00	N/A		
3,400.00	3,144.65	3,351.00	3,232.03	0.00		143.58	628.87	-417.50	478.96	478.96	0.00	N/A		
3,500.00	3,231.24	3,448.01	3,323.85	0.00		143.95	654.86	-434.95	503.03	503.03	0.00	N/A		
3,600.00	3,317.83	3,545.02	3,415.67	0.00		144.29	680.84	-452.40	527.11	527.11	0.00	N/A		
3,700.00	3,404.42	3,642.04	3,507.50	0.00		144.60	705.82	-469.85	551.20	551.20	0.00	N/A		
3,741.83	3,440.64	3,682.62	3,545.91	0.00		144.72	717.69	-477.15	561.29	561.29	0.00	N/A		
3,800.00	3,491.44	3,739.23	3,599.49	0.00		145.07	732.85	-487.34	574.61	574.61	0.00	N/A		
3,900.00	3,580.71	3,837.28	3,692.30	0.00		145.36	759.11	-504.98	594.19	594.19	0.00	N/A		
4,000.00	3,672.22	3,934.88	3,784.68	0.00		145.29	785.25	-522.53	609.56	609.56	0.00	N/A		
4,100.00	3,765.71	4,018.50	3,864.48	0.00		145.16	805.98	-536.46	622.11	622.11	0.00	N/A		
4,200.00	3,860.93	4,100.00	3,943.23	0.00		145.07	823.38	-548.15	632.91	632.91	0.00	N/A		
4,300.00	3,957.81	4,185.95	4,027.17	0.00		144.98	838.70	-558.43	641.92	641.92	0.00	N/A		
4,400.00	4,055.50	4,269.76	4,109.74	0.00		144.92	850.59	-566.42	649.13	649.13	0.00	N/A		
4,500.00	4,154.32	4,353.62	4,192.90	0.00		144.88	859.48	-572.39	654.53	654.53	0.00	N/A		
4,600.00	4,253.80	4,437.50	4,276.49	0.00		144.85	865.32	-576.31	658.09	658.09	0.00	N/A		
4,700.00	4,353.67	4,521.41	4,360.32	0.00		144.84	868.12	-578.19	659.82	659.82	0.00	N/A		
4,742.33	4,396.00	4,557.09	4,396.00	0.00		89.81	868.38	-578.37	659.99	659.99	0.00	N/A		
4,800.00	4,453.67	4,614.76	4,453.67	0.00		89.81	868.38	-578.37	659.99	659.99	0.00	N/A		
4,900.00	4,553.67	4,714.76	4,553.67	0.00		89.81	868.38	-578.37	659.99	659.99	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41J - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: D-Gyro													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance				Minimum Separation (ft)	Separation Factor	Warning	
		Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Hightside Toolface (°)	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,000.00	4,653.67	4,814.76	4,653.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,100.00	4,753.67	4,914.76	4,753.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,200.00	4,853.67	5,014.76	4,853.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,300.00	4,953.67	5,114.76	4,953.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,400.00	5,053.67	5,214.76	5,053.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,500.00	5,153.67	5,314.76	5,153.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,600.00	5,253.67	5,414.76	5,253.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,700.00	5,353.67	5,514.76	5,353.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,800.00	5,453.67	5,614.76	5,453.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
5,900.00	5,553.67	5,714.76	5,553.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,000.00	5,653.67	5,814.76	5,653.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,100.00	5,753.67	5,914.76	5,753.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,200.00	5,853.67	6,014.76	5,853.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,300.00	5,953.67	6,114.76	5,953.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,400.00	6,053.67	6,214.76	6,053.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,500.00	6,153.67	6,314.76	6,153.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,600.00	6,253.67	6,414.76	6,253.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,700.00	6,353.67	6,514.76	6,353.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,800.00	6,453.67	6,614.76	6,453.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
6,900.00	6,553.67	6,714.76	6,553.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,000.00	6,653.67	6,814.76	6,653.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,100.00	6,753.67	6,914.76	6,753.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,200.00	6,853.67	7,014.76	6,853.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,300.00	6,953.67	7,114.76	6,953.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,400.00	7,053.67	7,214.76	7,053.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,500.00	7,153.67	7,314.76	7,153.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,600.00	7,253.67	7,414.76	7,253.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,700.00	7,353.67	7,514.76	7,353.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,800.00	7,453.67	7,614.76	7,453.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
7,900.00	7,553.67	7,714.76	7,553.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,000.00	7,653.67	7,814.76	7,653.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,100.00	7,753.67	7,914.76	7,753.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,200.00	7,853.67	8,014.76	7,853.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,300.00	7,953.67	8,114.76	7,953.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,400.00	8,053.67	8,214.76	8,053.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,500.00	8,153.67	8,314.76	8,153.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,600.00	8,253.67	8,414.76	8,253.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,700.00	8,353.67	8,514.76	8,353.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,800.00	8,453.67	8,614.76	8,453.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
8,900.00	8,553.67	8,714.76	8,553.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,000.00	8,653.67	8,814.76	8,653.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,100.00	8,753.67	8,914.76	8,753.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,200.00	8,853.67	9,014.76	8,853.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,300.00	8,953.67	9,114.76	8,953.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,400.00	9,053.67	9,214.76	9,053.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,500.00	9,153.67	9,314.76	9,153.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,600.00	9,253.67	9,414.76	9,253.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,700.00	9,353.67	9,514.76	9,353.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,800.00	9,453.67	9,614.76	9,453.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
9,900.00	9,553.67	9,714.76	9,553.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10,000.00	9,653.67	9,814.76	9,653.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10,100.00	9,753.67	9,914.76	9,753.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Scientific Drilling

Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41J - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41J	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design NA 27-41 Pad - North Alger 27-41J - OH - Plan #1													Offset Site Error:	0.00 ft
Survey Program: O-Gyro													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre +N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10.200.00	9.853.67	10.014.76	9.853.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10.300.00	9.953.67	10.114.76	9.953.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10.400.00	10.053.67	10.214.76	10.053.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10.500.00	10.153.67	10.314.76	10.153.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10.600.00	10.253.67	10.414.76	10.253.67	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		
10.646.33	10.300.00	10.461.09	10.300.00	0.00	89.81	868.38	-578.37	659.99	659.99	659.99	0.00	N/A		

CONFIDENTIAL

Anticollision Report



Scientific Drilling

Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at:	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 5257' @ 5257.00ft

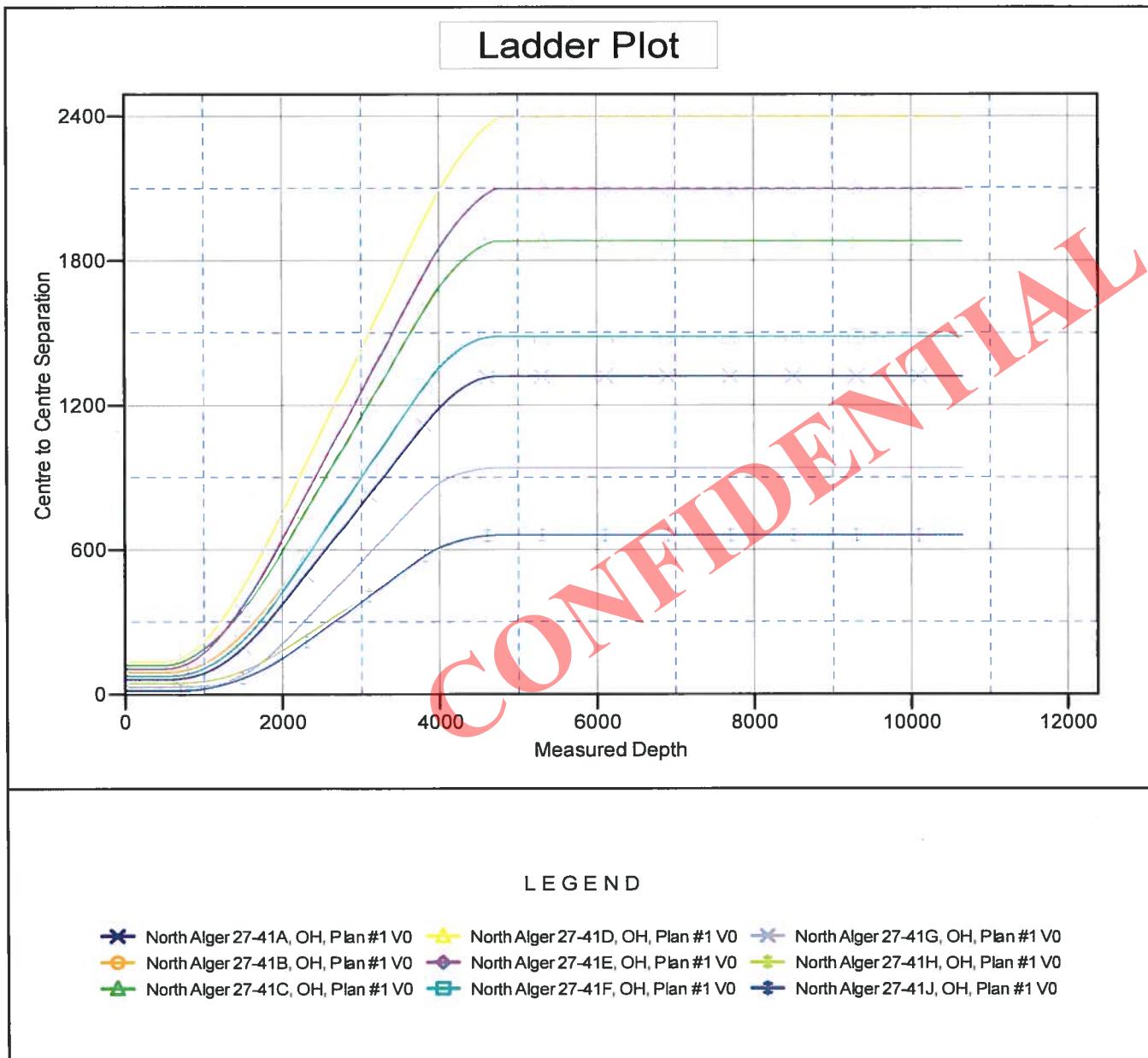
Offset Depths are relative to Offset Datum

Central Meridian is 111° 30' 0.000 W

Coordinates are relative to: North Alger 27-41I - Slot I

Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302

Grid Convergence at Surface is: 1.10"



Anticollision Report



Company:	Koch Exploration Co. LLC	Local Co-ordinate Reference:	Well North Alger 27-41I - Slot I
Project:	Uintah County, UT	TVD Reference:	GL 5257' @ 5257.00ft
Reference Site:	NA 27-41 Pad	MD Reference:	GL 5257' @ 5257.00ft
Site Error:	0.00 ft	North Reference:	True
Reference Well:	North Alger 27-41I	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction District
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 5257' @ 5257.00ft

Offset Depths are relative to Offset Datum

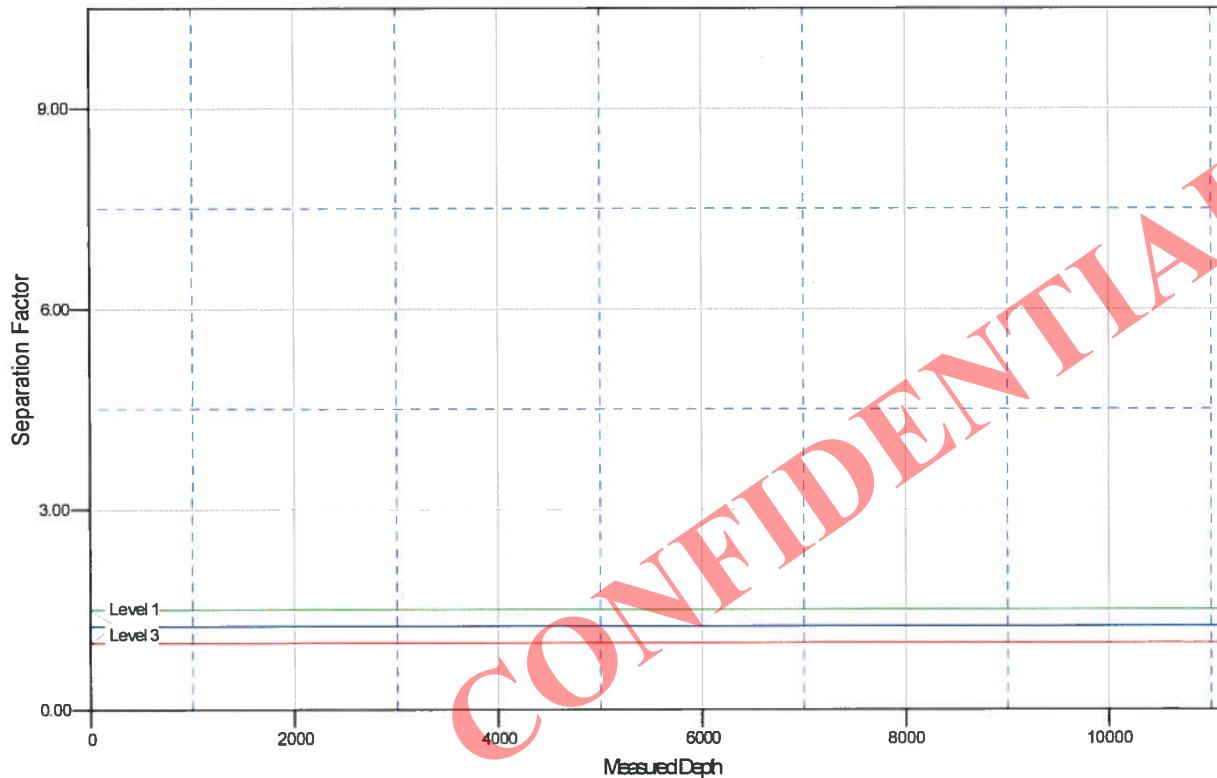
Central Meridian is 111° 30' 0.00 W

Coordinates are relative to: North Alger 27-41I - Slot I

Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302

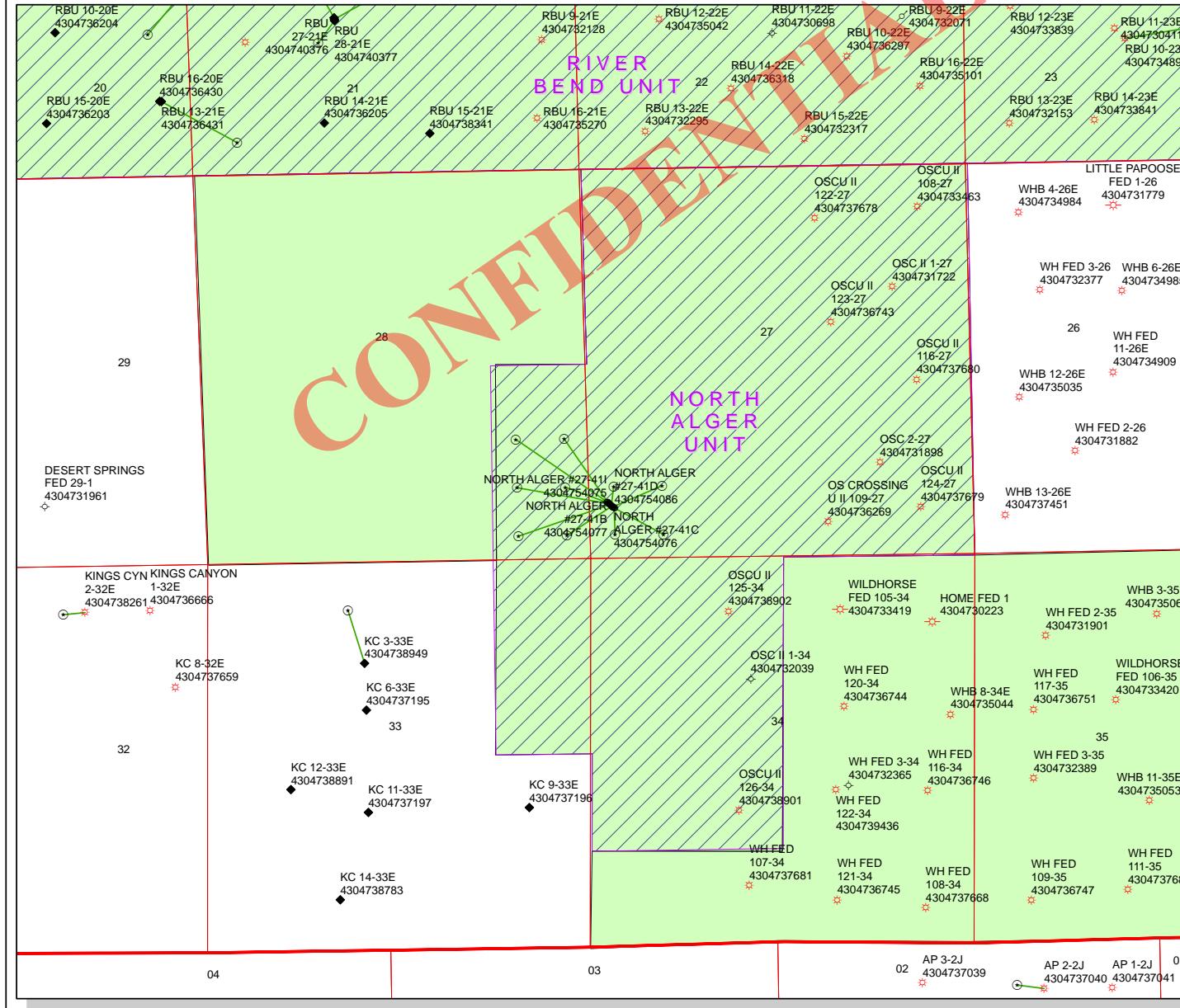
Grid Convergence at Surface is: 1.10°

Separation Factor Plot



L E G E N D

- | | | |
|------------------------------------|------------------------------------|------------------------------------|
| North Alger 27-41A, OH, Plan #1 V0 | North Alger 27-41D, OH, Plan #1 V0 | North Alger 27-41G, OH, Plan #1 V0 |
| North Alger 27-41B, OH, Plan #1 V0 | North Alger 27-41E, OH, Plan #1 V0 | North Alger 27-41H, OH, Plan #1 V0 |
| North Alger 27-41C, OH, Plan #1 V0 | North Alger 27-41F, OH, Plan #1 V0 | North Alger 27-41J, OH, Plan #1 V0 |



API Number: 4304754075

Well Name: NORTH ALGER #27-41I

Township: T10.0S Range: R19.0E Section: 27 Meridian: S

Operator: KOCH EXPLORATION COMPANY LLC

Map Prepared: 10/30/2013

Map Produced by Diana Mason

Wells Query	Units
Status	STATUS
◆ APD - Approved Permit	ACTIVE
○ DRL - Spudled (Drilling Commenced)	EXPLORATORY
✗ GIW - Gas Injection	GAS STORAGE
★ GS - Gas Storage	NF_PP_OIL
⊕ LOC - New Location	NF_SECONDARY
△ OPS - Operation Suspended	PI_OIL
◇ PA - Plugged Abandoned	PP_GAS
✖ PGW - Producing Gas Well	PP_GEOHERMAL
● POW - Producing Oil Well	PP_OIL
✖ SGW - Shut-in Gas Well	SECONDARY
● SOW - Shut-in Oil Well	TERMINATED
○ TA - Temp. Abandoned	
○ TW - Test Well	
✖ WDW - Water Disposal	
✖ WIW - Water Injection Well	
● WSW - Water Supply Well	



1,700 850 0 1,700 Feet
1:16,807

RECEIVED: October 30, 2013

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101

IN REPLY REFER TO:
3160
(UT-922)

November 1, 2013

Memorandum

To: Assistant Field Office Manager Minerals,
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development North Alger Unit Uintah
County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2013 within the North Alger Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Mesaverde)		
Well Pad 27-41		
43-047-54074	NORTH ALGER #27-41A	Sec 27 T10S R19E 0741 FSL 0278 FWL BHL Sec 28 T10S R19E 0330 FSL 0990 FEL
43-047-54075	NORTH ALGER #27-41I	Sec 27 T10S R19E 0780 FSL 0233 FWL BHL Sec 28 T10S R19E 1650 FSL 0990 FEL
43-047-54076	NORTH ALGER #27-41C	Sec 27 T10S R19E 0702 FSL 0323 FWL BHL Sec 27 T10S R19E 0330 FSL 0330 FWL
43-047-54077	NORTH ALGER #27-41B	Sec 27 T10S R19E 0721 FSL 0300 FWL BHL Sec 28 T10S R19E 0330 FSL 0330 FEL
43-047-54078	NORTH ALGER #27-41H	Sec 27 T10S R19E 0751 FSL 0267 FWL BHL Sec 28 T10S R19E 0990 FSL 0990 FEL
43-047-54079	NORTH ALGER #27-41G	Sec 27 T10S R19E 0761 FSL 0256 FWL BHL Sec 28 T10S R19E 0990 FSL 0330 FEL
43-047-54080	NORTH ALGER #27-41F	Sec 27 T10S R19E 0731 FSL 0289 FWL BHL Sec 27 T10S R19E 0990 FSL 0330 FWL
43-047-54085	NORTH ALGER #27-41J	Sec 27 T10S R19E 0771 FSL 0244 FWL BHL Sec 28 T10S R19E 1650 FSL 0330 FEL
43-047-54086	NORTH ALGER #27-41D	Sec 27 T10S R19E 0692 FSL 0334 FWL BHL Sec 27 T10S R19E 0330 FSL 0990 FWL

The following wells have a bottom hole location closer than 460 feet from the unit boundary:

43-047-54074 NORTH ALGER #27-41A Sec 27 T10S R19E 0741 FSL 0278 FWL
BHL Sec 28 T10S R19E 0330 FSL 0990 FEL

43-047-54075 NORTH ALGER #27-41I Sec 27 T10S R19E 0780 FSL 0233 FWL
BHL Sec 28 T10S R19E 1650 FSL 0990 FEL

43-047-54078 NORTH ALGER #27-41H Sec 27 T10S R19E 0751 FSL 0267 FWL
BHL Sec 28 T10S R19E 0990 FSL 0990 FEL

We have no objections to permitting the wells so long as the unit operator receives an exception to the locating and siting requirements of the State of Utah (R649-3-3). Please see Order numbers 4 and 5 of Cause No. 259-02.

Michael Coulthard

Digitally signed by Michael Coulthard
DN: cn=Michael Coulthard, o=Bureau of Land
Management, ou=Division of Minerals,
email=m.coultha@blm.gov, c=US
Date: 2013.11.01 11:18:45 -06'00'

bcc: File - North Alger Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:11-1-13



KOCH EXPLORATION COMPANY, LLC

November 18, 2013

Sent Via E-Mail to dianawhitney@utah.gov

State of Utah
Division of Oil, Gas and Mining
1594 West North Temple, Suite #1210
Salt Lake City, Utah 84115-5801

Re: Oil and Gas Conservation General Rules
R649-3-3 Exception to Location and Siting of Wells
North Alger 27-41A, North Alger 27-41H, North Alger 27-41I

Dear Diana:

Koch Exploration Company, LLC (KEC) is proposing to drill 3 development wells within the North Alger Unit, Natural Buttes Field, Uintah County, Utah. These wells are located on Bureau of Land Management lands in Section 27, T10S-R19E.

As shown on the attached staking and location plats, these wells will be directionally drilled, and the bottom holes will be 460' from Section 28, T10S-R19E which falls outside of the allowed standard well spacing rule (R649-3-2).

KEC is requesting an exception to the spacing requirement per regulation R649-3-3 since KEC was unable to locate the proposed well within the allowed spacing "window" due to topographic constraints. To maintain orderly 40 acre spacing and efficient well drainage these wells had to be drilled from the surface location in the SWSW of Section 27, T10S-R19E.

Further, KEC is the mineral interest owner of all lands within the 460' radius in both surface location and bottom hole locations. Attached is KEC acreage map for your files and a copy of BLM's Serial Register page for Lease UTU 049519, showing KEC as 100% Lessee of Section 28, T10S-R19E where our wells would be encroaching.

KEC is requesting the approval of these exception bottom hole locations as proposed. If additional information is required, please contact me at (303)-325-2569.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Morgan J. Connor'.

Morgan J. Connor, CPL
Land Manager

303.325.2560 Tel
303.325.2599 Fax

950 17th Street, Suite 1900
Denver, Colorado 80202

Koch Exploration Company, LLC
(303) 325-2569
connor2m@kochind.com

cc: Janni Keidel

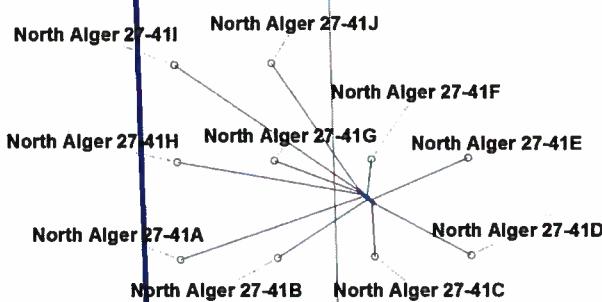
enclosures

CONFIDENTIAL

North Alger Unit

28

27



33

34

T10S-T19E

KOCH EXPLORATION COMPANY, LLC
North Alger Unit - Proposed Wells
Uintah County, Utah
Datum: NAD27
By: D. Csay 11-10-2013
0 1000 FEET
November 10, 2013

CONFIDENTIAL

Showing 460ft Radius Buffer around North Alger BH Locations:

27-41 A, 27-41 H, 27-41 H

23

24

20

21

25

26

27

28

29

NORTH ALGER
T10S-R19E

36

35

33

32

T11S-R19E

3

2

1

4

~~CONFIDENTIAL~~

**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page**

Run Date: 11/18/2013

Run Time: 08:44 AM

Page 1 of 2

01 02-25-1920;041STAT0437;30USC181ETSEQ
Case Type 312011: O&G LSE COMP PUBLIC
Commodity 459: OIL & GAS L
Case Disposition: AUTHORIZED

Total Acres 640.000 **Serial Number** UTU--- - 049519

Serial Number: UTU--- - 049519

Name & Address		Int Rel	% Interest	
KOCH EXPLORATION CO LLC	9777 PYRAMID CT STE 210	ENGLEWOOD CO 801126017	LESSEE	100.0000000
KOCH EXPLORATION CO LLC	9777 PYRAMID CT STE 210	ENGLEWOOD CO 801126017	OPERATING RIGHTS	0.0000000

Serial Number: UTU--- - 049519

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Field Office	County	Mgmt Agency
26 0100S 0190E 028	ALIQ	ALL;		VERNAL FIELD OFFICE	UINTAH	BUREAU OF LAND MGMT

Serial Number: UTU--- - 049519

Act Date	Code	Action	Action Remark	Pending Office
08/17/1981	387	CASE ESTABLISHED	#004;	
08/18/1981	143	BONUS BID PAYMENT RECD	\$40034.56;	
08/18/1981	191	SALE HELD		
08/18/1981	267	BID RECEIVED	\$200172.80;	
10/05/1981	143	BONUS BID PAYMENT RECD	\$160138.24;	
10/09/1981	237	LEASE ISSUED		
11/01/1981	496	FUND CODE	05;145003	
11/01/1981	532	RLTY RATE 12.5-25% SCH B		
11/01/1981	868	EFFECTIVE DATE		
05/23/1986	232	LEASE COMMITTED TO UNIT	UTU63094X;OLD SQUAW C	
10/31/1986	235	EXTENDED	THRU 10/31/88;	
12/19/1986	235	EXTENDED		
12/19/1986	659	LOCATED IN PROD UNIT	UTU63094X;OLD SQUAW C	
03/06/1987	932	TRF OPER RGTS FILED		
10/05/1987	933	TRF OPER RGTS APPROVED	EFF 04/01/87;	
11/23/1987	102	NOTICE SENT-PROD STATUS		
12/14/1987	932	TRF OPER RGTS FILED		
12/18/1987	933	TRF OPER RGTS APPROVED	EFF 01/01/88;	
01/30/1990	932	TRF OPER RGTS FILED		
02/06/1990	933	TRF OPER RGTS APPROVED	EFF 02/01/90;	
10/01/1991	651	HELD BY PROD - ALLOCATED		
10/01/1991	660	MEMO OF 1ST PROD-ALLOC	UTU630940;	
12/19/1991	253	ELIM BY CONTRAC(PARTIAL)	UTU63094X;OLD SQUAW C	
06/25/1993	974	AUTOMATED RECORD VERIF	CM	
10/08/1993	111	RENTAL RECEIVED	\$1120.00;41/MULTIPLE	
10/11/1994	111	RENTAL RECEIVED	\$1120.00;24/MULTIPLE	
09/25/1995	084	RENTAL RECEIVED BY ONRR	\$1120.00;21	
09/25/1995	084	RENTAL RECEIVED BY ONRR	\$1280.00;21	
09/25/1995	084	RENTAL RECEIVED BY ONRR	\$1280.00;24	
09/25/1995	084	RENTAL RECEIVED BY ONRR	\$560.00;24	
09/25/1995	084	RENTAL RECEIVED BY ONRR	\$640.00;24	
10/06/1995	084	RENTAL RECEIVED BY ONRR	\$560.00;21/0000000338	
10/04/1996	084	RENTAL RECEIVED BY ONRR	\$1120.00;21/000000036	
10/06/1997	084	RENTAL RECEIVED BY ONRR	\$1120.00;21/000000038	
10/05/1998	084	RENTAL RECEIVED BY ONRR	\$1120.00;21/000000043	

**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page**

Run Time: 08:44 AM

Page 2 of 2

Run Date: 11/18/2013

10/20/1999	084	RENTAL RECEIVED BY ONRR	\$1120;21/498
10/05/2000	084	RENTAL RECEIVED BY ONRR	\$1120;21/540
10/15/2004	932	TRF OPER RGTS FILED	1
11/02/2004	933	TRF OPER RGTS APPROVED	EFF 11/01/04;
09/09/2011	140	ASGN FILED	1
09/15/2011	932	TRF OPER RGTS FILED	1
11/03/2011	139	ASGN APPROVED	EFF 10/01/2011;
11/03/2011	933	TRF OPER RGTS APPROVED	EFF 10/01/2011;

Serial Number: UTU--- - 049519

Line Nr	Remarks
---------	---------

CONFIDENTIAL

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/25/2013

API NO. ASSIGNED: 43047540750000

WELL NAME: NORTH ALGER #27-41I

OPERATOR: KOCH EXPLORATION COMPANY LLC (N3755)

PHONE NUMBER: 303 325-2578

CONTACT: Janni Keidel

PROPOSED LOCATION: SWSW 27 100S 190E

Permit Tech Review:

SURFACE: 0780 FSL 0233 FWL

Engineering Review:

BOTTOM: 1650 FSL 0990 FEL

Geology Review:

COUNTY: UNTAH

LATITUDE: 39.91292

LONGITUDE: -109.77658

UTM SURF EASTINGS: 604565.00

NORTHINGS: 4418809.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU49518, UTU-49519

PROPOSED PRODUCING FORMATION(S): SEGO

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

 PLAT Bond: FEDERAL - COB000296 Potash Oil Shale 190-5 Oil Shale 190-3 Oil Shale 190-13 Water Permit: 49-2231, 43-8496, 49-1645 RDCC Review: Fee Surface Agreement Intent to Commingle

Commingling Approved

LOCATION AND SITING:

 R649-2-3.

Unit: NORTH ALGER

 R649-3-2. General R649-3-3. Exception Drilling Unit

Board Cause No: Cause 259-02

Effective Date: 9/27/2012

Siting: Suspends General Siting

 R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations:

- 1 - Exception Location - dmason
- 3 - Commingling - ddoucet
- 4 - Federal Approval - dmason
- 15 - Directional - dmason



GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NORTH ALGER #27-41I

API Well Number: 43047540750000

Lease Number: UTU49518, UTU-49519

Surface Owner: FEDERAL

Approval Date: 11/20/2013

Issued to:

KOCH EXPLORATION COMPANY LLC, 9777 Pyramid Court Ste 210, Englewood, CO 80112

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 259-02. The expected producing formation or pool is the SEGO Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

Commingle:

In accordance with Board Cause No. 259-02, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division

within 30 days following completion of the well.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) - due prior to implementation
 - Written Notice of Emergency Changes (Form 9) - due within 5 days
 - Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:



For John Rogers
Associate Director, Oil & Gas

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

NOV 06 2013

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: DRILL REENTER

CONFIDENTIAL

1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone

2. Name of Operator Contact: JANNI KEIDEL
KOCHEXPLORATION COMPANY, LLC: janni.keidel@kochind.com

3a. Address
950 17TH STREET, SUITE 1900
DENVER, CO 80202

3b. Phone No. (include area code)
Ph: 303-325-2578
Fx: 303-325-2599

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface SWSW 780FSL 233FWL 39.912996 N Lat, 109.776607 W Lon

At proposed prod. zone NESE 1650FSL 990FEL 39.915373 N Lat, 109.781022 W Lon

14. Distance in miles and direction from nearest town or post office*
54.1 MILES SW FROM VERNAL, UT

15. Distance from proposed location to nearest property or
lease line, ft. (Also to nearest drig. unit line, if any)
233' E OF UTU49519 LEASE LINE

16. No. of Acres in Lease
640.00

11. Sec., T., R., M., or Blk. and Survey or Area

Sec 27 T10S R19E Mer SLB

12. County or Parish
UINTAH

13. State
UT

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling,
completed, applied for, on this lease, ft.
2150' NW OF OSCU II 125-34

19. Proposed Depth
10646 MD
10300 TVD

20. BLM/BIA Bond No. on file
COB000296

21. Elevations (Show whether DF, KB, RT, GL, etc.)
5255 GL

22. Approximate date work will start
04/01/2014

23. Estimated duration
30

RECEIVED

MAY 30 2014

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond or otherwise item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

DIV. OF OIL, GAS & MINING

25. Signature
(Electronic Submission)

Name (Printed/Typed)
NATALIE L NAEVE Ph: 303-325-2565

Date
10/17/2013

Title
SENIOR OPERATIONS ENGINEER

Approved by (Signature)

Name (Printed/Typed)

Jerry Kenczka

MAY 23 2014

Title
ASSISTANT FIELD MANAGER
LANDS & MINERAL RESOURCES

Office

VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #223298 verified by the BLM Well Information System
For KOCH EXPLORATION COMPANY, LLC, sent to the Vernal
Committed to AFMSS for processing by LESLIE BUHLER on 11/12/2013 ()

NOTICE OF APPROVAL

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

UDOGM

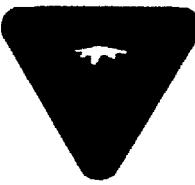


UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Koch Exploration Company, LLC
Well No: NORTH ALGER 27-41I
API No: 43-047-54075

Location: SWSW SEC 27 T10S R19E
Lease No: UTU49518
Agreement:

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <u>blm_ut_vn_opreport@blm.gov</u>
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

**SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

Air Quality:

- The Operator will utilize drilling rig engines of Tier 2 quality or better.
- The Operator will install dehydrator volatile organic compound (VOC) emission controls to attain + 90 percent efficiency.
- If needed, the Operator will install stationary internal combustion engines that meet an emissions standard of 2 grams/BHP-hour for engines less than 300 horsepower (HP) and 1 gram/BHP-hour (base horsepower-hour) for engines greater than or equal to 300 HP. Note: No stationary internal combustion engines are proposed for this project.
- The Operator will install 95 percent efficient VOC emission controls on production tanks with the potential to emit more than 6 tons per year (TPY) VOCs, as required by NSPS Subpart OOOO (EPA, 2011f-as cited in the EA).
- The Operator will utilize low-bleed (or equivalent device that does not exceed the EPA low-bleed emissions thresholds of 6 scfh) pneumatic devices at all new and existing production facilities (EPA, 2011f-as cited in the EA).
- The Operator will establish a thief hatch/Enardo inspection and replacement program to minimize tank losses.
- The Operator will utilize telemetry to minimize well visits.
- The Operator will install solar-powered chemical pumps on production facilities.

The Operator will employ measures to mitigate any potential exceedences of the 1-hour NO₂ standard during drilling operations by employing effective public health buffer zones out to 200 meters (m) from the nearest emission source. Examples of an effective public health protection buffer zone include the demarcation of a public access exclusion zone by signage at intervals of every 250 feet that is visible from a distance of 125 feet during daylight hours, and a physical buffer such as active surveillance to ensure the property is not accessible by the public during drilling operations. Additionally, the applicant commits to developing a project-specific adaptive management strategy, to be informed by periodic emission inventory updates. Implementation of this strategy and associated application of "enhanced" ozone mitigation measures would be required once the proposed project is initiated if:

- 1) USEPA designates the area "nonattainment" for ozone;
- 2) There is a monitored ozone standard exceedance;
- 3) The ARMS modeling shows that additional mitigation is needed to prevent future ozone exceedances; or
- 4) The ARMS group establishes industry-wide mitigation requirements through ongoing modeling.

If implementation of this adaptive management strategy is triggered, the applicant commits to working with the BLM to analyze project-specific "enhanced" mitigation measures and employ them within 1 year. The measures to be considered could include, but would not be limited to, the following:

- Reducing the total number of drill rigs.
- Installing Tier 4 or better drill rig engines.
- Seasonally reducing or ceasing drilling during specified periods.
- Using only lower-emitting drill and completion rig engines during specified time periods.
- Using natural gas-fired drill and completion rig engines.

- Replacing internal combustion engines with gas turbines for natural gas compression.
- Using electric drill rig or compression engines.
- Centralizing gathering facilities.
- Limiting blow-downs or restricting them during specified periods.
- Installing plunger lift systems with smart automation.
- Employing a monthly Forward Looking Infrared, or FLIR, monitoring program to reduce VOCs.
- Enhancing a direct inspection and maintenance program.
- Employing tank load out vapor recovery.
- Employing enhanced VOC emission controls with 95 percent control efficiency on additional production equipment having a potential to emit of greater than 5 tons per year.
- In addition to the commitments discussed above, the applicant commits to complying with applicable air pollution control rules and regulations.

Air quality issues are being addressed on a Utah-wide basis through the Utah Air Resource Technical Advisory Group (UTAG) and the BLM's ARMS. The actions outlined below have been designed to address ozone levels possibly associated with oil and gas operations in the Uinta Basin. The actions consist of the following elements:

- Refine air quality modeling predictions;
- Develop a Uinta Basin ozone action plan; and
- Implement a regional ozone action plan.

The first two elements of this strategy are being implemented by the BLM and other agency stakeholders, independent of the decision to be made regarding further development in the Uinta Basin. Regional operators may participate in these initial planning steps, thereby having the opportunity to contribute to the outcome of the process. The third element would require specific action by the applicant and other oil and gas operators in the Uinta Basin following the approval of the Decision Record. All three elements are described in more detail in the following paragraphs.

Cultural Resources:

- If any historic or archaeological resources are found during operations, all operations that could further disturb such materials will be suspended, and the AO will be contacted for direction.

Livestock Grazing:

- If existing range improvements were to be damaged by project operations, the Operator will contact the AO immediately for direction.
- Stock ponds in the NAPA would be avoided such that they would not be damaged by project operations. If existing stock ponds were to be functionally impaired by sedimentation resulting from project operations, the Operator will contact the AO immediately for direction and will take measures to restore the functionality of affected range improvements.

Paleontological Resources:

If any paleontological resources are found during operations, all operations that could further disturb such materials will be suspended, and the AO will be contacted for direction.

Soils and Water:

Stormwater flow and sedimentation will be controlled with the implementation of Gold Book BMPs and the Operator's Post-construction Stormwater plan (SWPPP) (See Appendix E of the EA).

Threatened, Endangered, and Candidate Species:

Re-initiation of section 7 consultation with the USFWS will be sought immediately if any loss of Threatened or Endangered species is causes as a result of project activities

Vegetation:

- The Operator would implement site-specific reclamation activities based on a Reclamation Plan (Appendix D) and the Green River District Reclamation Guidelines
- The Operator would initiate an active weed management program in its NAPA leases in the spring of 2012. The Operator would use herbicides to control infestations of weeds, using procedures described in a weed control plan.
- All herbicide treatments will follow the guidance of the Record of Decision for the BLM Vegetation Treatments Using Herbicides (BLM, 2007b) and any future local Weed Management direction received from the FO to ensure the use of safeguards with respect to approved chemicals, application rates, and BMPs.
- Weed-free mulching or other means, as determined appropriate during the onsite or reclamation inspections, will be used.

Re-initiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants of Threatened or Endangered species is causes as as a result of project activities.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

1. A CBL shall be run from TD to TOC for the production casing.
2. Surface casing cement shall be brought to surface.
3. Production casing cement shall be brought 400' up and into the surface casing. This measure is to effectively protect useable water.
4. A variance is granted for Onshore Order #2 Drilling Operations III. B. I. pressure integrity test (PIT) or formation integrity test (FIT) of surface casing shoe.
5. A variance is granted for Onshore Order #2 Drilling Operations III. E. "Bloovie line discharge 100 feet from well bore and securely anchored" Bloovie line can be 75 feet.
6. All requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and NOT by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in CD (compact disc) format to the Vernal BLM Field Office. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.

- Well name and number.
- Well location (1/4, Sec., Twp, Rng, and P.M.).
- Date well was placed in a producing status (date of first production for which royalty will be paid).
- The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
- The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
- Unit agreement and/or participating area name and number, if applicable.
- Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.
- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

January 29, 2015

KOCH Exploration Company, LLC
9777 Pyramid Court Ste. 210
Englewood, CO 80112

Re: APDs Rescinded KOCH Exploration Company, LLC, Uintah County

Ladies and Gentlemen:

Enclosed find the list of APDs that is being rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded as of January 29, 2015.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal

43-047-54074 North Alger #27-41A
43-047-54075 North Alger #27-41I
43-047-54078 North Alger #27-41H